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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY CLASS I PERMIT

COMPANY: **ARIZONA PORTLAND CEMENT COMPANY**
FACILITY: **RILLITO CEMENT PLANT**
PERMIT #: **M190310P1-00**
DATE ISSUED: **PROPOSED PERMIT**
EXPIRY DATE:

ABSTRACT

This Class I Title V permit is issued to Arizona Portland Cement Company, Permittee, for operation of their Quarry and Cement Plant located at 11115 N. Casa Grande Highway, Rillito, AZ 85654, in Pima County.

This permit is issued in accordance with Title 49, Chapter 3 of the Arizona Revised Statutes. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (AAC), Arizona State Implementation Plan (SIP), Code of Federal Regulations (CFR) Title 40 - Parts 52, 60, 63, and 70 except as otherwise defined in this permit. All terms and conditions in this permit are enforceable by the Administrator of the U.S. Environmental Protection Agency.

The potential emission rates of the following pollutants are greater than major source thresholds: (i) particulate matter, (ii) particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}), (iii) nitrogen oxides, and (iv) carbon monoxide. Therefore, the facility is classified as a major source as defined in AAC R18-2-101(64), and requires a Class I permit pursuant to AAC R18-302(B)(1)(a). Permittee will calculate potential emission rates of hydrogen chloride based upon performance tests that will be completed before June 10, 2002. The results of the tests will be used to ascertain whether the cement plant is a major source of hazardous air pollutant (HAP) emissions. If the cement plant is a major source of HAP emissions, Permittee shall comply with Attachment B of this permit. If the cement plant is not a major source of HAP emissions, Permittee shall comply with Attachment C of this permit.

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ATTACHMENT "A": GENERAL PROVISIONS

Air Quality Control Permit No. M190310P1-00
for
ARIZONA PORTLAND CEMENT COMPANY - RILLITO CEMENT PLANT

I. PERMIT EXPIRATION AND RENEWAL

[A.R.S. § 49-426.F, AAC R18-2-304(C)(2), 306(A)(1), and 322]

A. This permit is valid for a period of five years from the date of issuance of the permit.

B. Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months prior to the date of permit expiration.

II. COMPLIANCE WITH PERMIT CONDITIONS

[AAC R18-2-306(A)(8)(a) and (b), A.R.S. § 49-463, and A.R.S. §49-464]

A. Permittee shall comply with all the conditions contained in Attachments A, B, C, and D of this permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act (Act).

B. Need to halt or reduce activity not a defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[AAC. R18-2-306(A)(8)(c) and 321(A)]

A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by Permittee for a permit revision, revocation and reissuance, or termination; or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. The permit shall be reopened and revised under any of the following circumstances:

1. Additional applicable requirements under the Act become applicable to the Class I source. Such reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original

permit or any of its terms and conditions has been extended pursuant to R18-2-322(B). Any permit revision required pursuant to this subparagraph shall comply with provisions in R18-2-322 for permit renewal and shall reset the five year permit term.

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit.

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Paragraph III(B)(1) above, affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Paragraph III(B)(1) of this Attachment shall not result in a resetting of the five year permit term.

IV. POSTING OF PERMIT [AAC R18-2-315]

Permittee shall post this permit, or a certificate of permit issuance where the facility is located in such a manner as to be clearly visible and accessible. All equipment covered by the permit shall be clearly marked with one of the following:

A. Current permit number.

B. Serial number or other equipment number that is also listed in the permit to identify that piece of equipment.

C. A copy of the complete permit shall be kept on the site.

V. FEE PAYMENT [AAC R18-2-326 and 306(A)(9)]

Permittee shall pay fees to the Director pursuant to A.R.S. § 49-426(E) and AAC R18-2-326.

VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE [AAC R18-2-327]

A. Permittee shall complete and submit to the Director an annual emissions inventory questionnaire.

The questionnaire is due by March 31 or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

B. The questionnaire shall be on a form provided by the Director and shall include the information required by AAC R18-2-327.

VII. COMPLIANCE CERTIFICATION [AAC R18-2-309(2)(a), -309(2)(c), -309(2)(d), -309(5)(d)]

A. Permittee shall submit a compliance certification to the Director twice each year, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than February 15, and shall report the compliance status of the source during the period between July 1 and December 31 of the previous year. The second certification shall be submitted no later than August 15, and shall report the compliance status of the source during the period between January 1 and June 30 of the current year. A copy of all compliance certifications for Class I permits shall also be submitted to the EPA Administrator.

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;

2. Identification of the methods or other means used by Permittee for determining the compliance status with each term and condition during the certification period, and whether the methods or means provide continuous or intermittent data;

3. The status of compliance with the terms and conditions of this permit for the period covered by the certification, based on the methods or means designated in Paragraph VII(A)(2) above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;

4. For emission units subject to 40 CFR part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

5. All instances of deviations from permit requirements reported pursuant to Part XII(B) of this Attachment; and

6. Other facts that the Director may require to determine the compliance status of the source;

B. A copy of all compliance certifications shall also be submitted to the EPA Administrator.

C. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Part VII(A) above.

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

[AAC R18-2-309(3)]

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

IX. INSPECTION AND ENTRY

[AAC R18-2-309(4)]

Permittee shall allow the Director or the authorized representative of the Director upon presentation of proper credentials to:

A. Enter upon Permittee's premises where a source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;

B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

E. Record any inspection by use of written, electronic, magnetic and photographic media.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

If this source becomes subject to a standard promulgated by the Administrator pursuant to section 112(d) of the Act, then Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard. [AAC R18-2-304(C)]

XI. ACCIDENTAL RELEASE PROGRAM

If this source becomes subject to the provisions of 40 CFR Part 68, then Permittee shall comply with these provisions according to the timeline specified in 40 CFR Part 68.

[40 CFR 68]

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting [AAC R18-2-310.01(A) and -310.01(B)]

1. Excess emissions shall be reported as follows :

   a. Permittee shall report to the Director any emissions in excess of the limits established by this permit. The report shall be in two parts as specified below:

      (1) Notification by telephone or facsimile within 24 hours of the time when Permittee first learned of the occurrence of excess emissions including all available information from Sub-Paragraph XII(A)(1)(b) of this Attachment.

      (2) Detailed written notification within 72 hours of the notification pursuant to Condition XII(A)(1)(a)((1)) of this Attachment.

   b. The report shall contain the following information:

      (1) Identity of each stack or other emission point where the excess emissions occurred.

      (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.

      (3) Date, time and duration or expected duration of the excess emissions.

      (4) Identity of the equipment from which the excess emissions emanated.

      (5) Nature and cause of such emissions.

      (6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.

      (7) Steps taken to limit the excess emissions.

2. In the case of continuous or recurring excess emissions, the notification requirements of Part XII(A) shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to Paragraph XII(A)(1) of this Attachment.

B. Permit Deviations Reporting [AAC R18-2-306(A)(5)]

1. Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time the deviation occurred.

2. All instances of deviations from permit requirements shall be clearly identified in the required semiannual monitoring report specified in Part I(B) of Attachment "B" and shall be certified by the responsible official.

[AAC R18-2-306(A)(5)(a)]

C. Emergency Provision [AAC R18-2-306(E)]

1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Paragraph XII(C)(3) is met.

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

   b. The permitted facility was being properly operated at the time;

   c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

   d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. For any excess emission or permit deviation that cannot be corrected within 72 hours, Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

[A.R.S. 49-426(I)(5)]

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

[AAC R18-2-310]

1. Applicability

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

a. Promulgated pursuant to Sections 111 or 112 of the Act;

b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;

c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;

d. Contained in AAC R18-2-715(F); or

e. Included in a permit to meet the requirements of AAC R18-2-406(A)(5).

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if Permittee has complied with the reporting requirements of AAC R18-2-310.01 and has demonstrated all of the following:

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of Permittee;

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, Permittee satisfactorily demonstrated that the measures were impracticable;

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

i. All emissions monitoring systems were kept in operation if at all practicable; and

j. Permittee's actions in response to the excess emissions were documented by contemporaneous records.

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Sub-Paragraph XII(E)(3)(b) below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, Permittee has an affirmative defense to a civil or administrative

enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if Permittee has complied with the reporting requirements of AAC R18-2-310.01 and has demonstrated all of the following:

(1) The excess emissions could not have been prevented through careful and prudent planning and design;

(2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

(3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

(4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

(5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

(6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

(7) All emissions monitoring systems were kept in operation if at all practicable; and

(8) Permittee's actions in response to the excess emissions were documented by contemporaneous records.

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Paragraph XII(E)(2) above.

4. Affirmative Defense for Malfunctions During Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Paragraph XII(E)(2) above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Paragraphs XII(E)(2) or XII(E)(3) above, Permittee shall demonstrate, through submission of the data and information required by Part XII(E) and AAC. R18-2-310.01, that all reasonable and practicable measures within Permittee's control were implemented to prevent the occurrence of the excess emissions.

XIII. RECORD KEEPING REQUIREMENTS [AAC R18-2-306(A)(4)]

A. Permittee shall keep records of all required monitoring information including, but not limited to, the following:

1. The date, place as defined in the permit, and time of sampling or measurements;

2. The date(s) analyses were performed;

3. The name of the company or entity that performed the analyses;

4. A description of the analytical techniques or methods used;

5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.

B. Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

XIV. REPORTING REQUIREMENTS [AAC R18-2-306(A)(5)(a)]

Permittee shall submit the following reports :

A. Compliance certifications in accordance with Section VII of Attachment "A".
B. Reports of excess emissions, permit deviations, and emergencies in accordance with Section XII Attachment "A".
C. Other reports required by Attachment "B" and Attachment "C".

XV. DUTY TO PROVIDE INFORMATION [AAC R18-2-304(G) and 306(A)(8)(e)]

A. Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request,

Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

B. If Permittee has failed to submit any relevant facts or if Permittee has submitted incorrect information in the permit application, Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XVI. PERMIT AMENDMENT OR REVISION [AAC R18-2-318, 319 and 320]

Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVII, as follows:

A. Administrative Permit Amendment (AAC R18-2-318);

B. Minor Permit Revision (AAC R18-2-319);

C. Significant Permit Revision (AAC R18-2-320).

The applicability and requirements for such action are defined in the above referenced regulations.

XVII. FACILITY CHANGE WITHOUT PERMIT REVISION [AAC R18-2-317]

A. Permittee may make changes at the permitted source without a permit revision if all of the following apply:

1. The changes are not modifications under any provision of Title I of the Act or under A.R.S. § 49-401.01(17).

2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions.

3. The changes do not violate any applicable requirements or trigger any additional applicable requirements.

4. The changes satisfy all requirements for a minor permit revision under R18-2-319(A).

5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Parts (A) and (C)

of this Section.

C. For each such change under Parts (A) and (B) of this Section, a written notice by certified mail or hand delivery shall be received by the Director and, for Class I permits, the Administrator, a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change but must be provided as far in advance of the change as possible or, if advance notification is not practicable, as soon after the change as possible. Each notification shall include:

1. When the proposed change will occur.

2. A description of each such change.

3. Any change in emissions of regulated air pollutants.

4. The pollutants emitted subject to the emissions trade, if any.

5. The provisions in the implementation plan that provide for the emissions trade with which the source will comply and any other information as may be required by the provisions in the implementation plan authorizing the trade.

6. If the emissions trading provisions of the implementation plan are invoked, then the permit requirements with which the source will comply.

7. Any permit term or condition that is no longer applicable as a result of the change.

XVIII. PERFORMANCE TESTING REQUIREMENTS [AACR18-2-312]

A. Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

B. Operational Conditions During Performance Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, Permittee may conduct performance tests at less than the maximum operating capacity of the units being tested. The maximum permitted process rate shall then become the process rate during the test plus 20 percent, not to exceed the original permitted value. Operations during start-up, shutdown, and malfunction (as defined in AAC R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

C. Performance tests shall be conducted and data reduced in accordance with the test method and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to AAC R18-2-312.B.

D. Performance Test Plan

At least 14 calendar days prior to performing a test, the owner or operator shall submit a test plan to the Director, in accordance with the Arizona Testing Manual. This test plan must include among others identified in the Arizona Testing Manual the following:

1. test duration;
2. test location(s);
3. test method(s); and
4. source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

Permittee shall provide or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platforms;
3. Safe access to sampling platforms; and
4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director, or Director's designee, is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes, forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other conditions beyond Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation which demonstrates good cause must be submitted.

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and AAC R18-2-312.A.

XIX. PROPERTY RIGHTS [AAC R18-2-306(A)(8)(d)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

XX. SEVERABILITY CLAUSE [AAC R18-2-306(A)(7)]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

XXI. PERMIT SHIELD [AAC R18-2-325]

Compliance with the conditions of this permit shall be deemed compliance with the applicable requirements identified in Attachment B of this permit. The permit shield shall not apply to any changes made pursuant to Part XVI(B) and Section XVII of this Attachment.

ATTACHMENT "B": SPECIFIC PROVISIONS

Air Quality Control Permit No. M190310P1-00
for
ARIZONA PORTLAND CEMENT COMPANY - RILLITO CEMENT PLANT

{Reading Note: In this Attachment there are many instances where requirements in different parts of the permit have to be cross-referenced. To streamline the cross-referencing procedure, and to reduce ambiguity, the following naming convention has been adopted - Level 1 : Section ; Level 2: Part; Level 3:Paragraph; Level 4:Sub-Paragraph; Level 5: Condition; Level 6: Term. For example, requirements for the Pyroprocessing System are in Section V. The requirements for the Kilns are in Part V(A). The Emission Standards for the Kilns are in Paragraph V(A)(1). The temperature limits for the Kilns are in Sub-Paragraph V(A)(1)(d). When a fifth level appears, it is referred to as a "Condition", a sixth level is referred to as a "Term".}

I. General Requirements

A. Permittee shall comply with this Attachment if the plant is a major source of hazardous air pollutants (HAP) as defined in AAC R18-2-101(64)(b)(i). Permittee shall comply with Attachment C if it is not a major source of HAP.

[AAC R18-2-1101(B)(46),40 CFR §63.1340]

B. The conditions of this permit shall apply to equipment identified in Attachment D. In the event that after the date of permit issuance, Permittee identifies equipment existing at the plant at the time of permit issuance, but not included in the permit application for this permit, Permittee shall promptly apply for a permit revision to include such equipment in the permit.

[AAC R18-2-304(G)]

C. Within 30 days of issuance of this permit the owner or operator shall have on site or on call a person that is certified in EPA Reference Method 9.

[AAC R18-2-306(A)(3)(c)]

D. Permittee shall not cause or permit the airborne diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions became airborne.

[Pima County Applicable SIP, Rule 343]

1. In actual practice, the airborne diffusion of visible emissions across property lines shall be prevented by appropriately controlling the emissions at the point of discharge, or ceasing entirely the activity or operation which is causing or contributing to the emissions.

2. Part I(D) of this Attachment shall not apply when the naturally induced wind speed exceeds 25 miles per hour as estimated by a certified visible emission evaluator using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by a U.S. Weather Bureau Section or a U.S. Government military installation.

3. The exception in Paragraph I(D)(2) of this Attachment shall not apply to the demolition, destruction, transport, or pulverization of structures containing friable asbestos materials, and all dust producing activities associated with such sources shall be halted when the

wind is causing or contributing visible emissions to cross beyond the property lines within which the emissions discharge.

4. Any disregard of, neglect of, or inattention to other controls required herein, during any time when Part I(D) of this Attachment is in effect, shall automatically waive the exception in Paragraph I(D)(2) of this Attachment, and such relaxation of controls shall be a violation.

E. For the purposes of this permit, Visible Emissions Observation Procedure shall refer to the following methodology :

1. Within 30 days of issuance of this permit, Permittee shall submit a visual observation plan to be approved by the Department. The observation plan shall identify a central lookout station or multiple observation points, as appropriate, from where non-point sources, and where applicable, fugitive emissions, shall be monitored. When multiple observation points are used, all the non- point sources, and where applicable, fugitive emissions, associated with each observation point shall be specifically identified within the observation plan.

2. A certified EPA Reference Method 9 observer shall conduct a visual survey of visible emissions from non-point sources, and where applicable, fugitive emissions, in accordance with the observation plan, under normal representative operating conditions. The survey shall be conducted at the frequency specified in the permit condition that refers to this procedure. Permittee shall keep a record of the name of the observer, the date and time on which the observation was made, the location(s) of the observation, and the results of the observation.

3. If the observer sees a plume from a non-point source or a fugitive emissions source that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall, if practicable, take a six-minute EPA Reference Method 9 observation of the plume.

4. If the six-minute opacity of the plume is less than the applicable opacity standard, the observer shall make a record of the following:

   a. Location, date, and time of the observation;
   b. The results of the EPA Reference Method 9 observation; and
   c. The name of the observer.

5. If the six-minute opacity of the plume exceeds the applicable opacity standard, then Permittee shall do the following:

   a. Adjust or repair the controls or equipment to reduce opacity to below the applicable opacity standard;

b. Report as an excess emission in accordance with Section XII of Attachment "A" of this permit; and
c. Conduct a six-minute EPA Reference Method 9 observation reading within 48 hours after taking corrective action. The results of this observation including date, time, name of the observer, and location shall be recorded.

6. Any changes to the observation plan, originally approved by the Department, shall be made only with the prior approval of the Director.

F. For the purposes of this Attachment, the following definitions shall be used :

1. "Affected facility" means any apparatus to which a standard is applicable. This definition is from 40 CFR § 60.2. In this permit, "affected facility" is used to refer to equipment subject to the New Source Performance Standards in 40 CFR Part 60.

2. "Affected source" means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to Section 112 of the Clean Air Act. "Stationary source" for the purposes of this definition shall mean any building, structure, facility, or installation which emits or may emit any air pollutant. The definitions in the first two sentences are from 40 CFR § 63.2. In this permit, "affected source" is used to refer to equipment subject to the National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63.

3. "Drop Points" shall refer to material transfer on to, off of, or between, any combination of air slides, bucket elevators, conveyor belts, cement truck or railcar loading, cement truck or railcar unloading, crushers, dust collectors, feeders, grizzlies, haul truck loading or unloading, hoppers, mills, stackers, screens, screw conveyors, storage bins, storage piles, storage silos, and any other material handling equipment.

4. "Malfunction" means:

a. Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. This definition of "Malfunction" is from 40 CFR § 63.2, and is applicable only to permit conditions that are derived from 40 CFR Part 63.

b. Any sudden and unavoidable failure of air pollution control equipment, process equipment or a process to operate in a normal and ususal manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care. This definition of "Malfunction" is from AAC R18-2-101(65), and is applicable only to permit conditions that are derived from the Arizona

Administrative Code.

5. "Material permit condition" shall have the meaning provided in AAC R18-2-331.

6. "Process source" means the last operation or process which produces an air contaminant resulting from either :

   a. The separation of the air contaminants from the process material, or
   b. The conversion of constituents of the process materials into air contaminants which is not an air pollution abatement operation.

   This definition is from AAC R18-2-701(22). In this permit "process source" is used to refer to equipment subject to the Arizona State Implementation Plan, and Article 7 of the Arizona Administrative Code.

7. "Process weight" means the total weight of all materials introduced into a process source, including fuels, where these contribute to pollution generated by the process.
   [AAC R18-2-701(23)]

8. "Process weight rate" shall be determined as follows :
   [AAC R18-2-702(E)]

   a. For continuous or long run, steady-state process sources, the process weight rate shall be the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

   b. For cyclical or batch process sources, the process weight rate shall be the total process weight for a period which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such period.

9. "Shutdown" means:

   a. The cessation of operation of an affected source for any purpose. This definition of "Shutdown" is from 40 CFR §63.2, and is applicable only to permit conditions that are derived from 40 CFR Part 63.

   b. The cessation of operation of any air pollution control equipment or process equipment for any purpose, except routine phasing out of process equipment. This definition of "Shutdown" is from AAC R18-2-101(103), and is applicable only to permit conditions that are derived from the Arizona Administrative Code.

10. "Startup" means :

a. The setting in operation of an affected source for any purpose. This definition of "Startup" is from 40 CFR §63.2, and is applicable only to permit conditions that are derived from 40 CFR Part 63.

b. The setting into operation of any air pollution control equipment or process equipment for any purpose except routine phasing in of process equipment. This definition of "Startup" is from AAC R18-2-101(108), and is applicable only to permit conditions that are derived from the Arizona Administrative Code.

G. Permittee shall comply with the Operations and Maintenance Plan (OMP) submitted with the application for this permit, for each affected source. The OMP shall include the following : [AAC R18-2-1101(B)(46), 40 CFR §63.1350(a)]

1. Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of Sections V, VI, and VIII of this Attachment.

2. Corrective actions to be taken when required by Paragraph VI(C)(1) of this Attachment.

3. Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln/raw mill located at the facility each year; and

4. Procedures to be used to periodically monitor affected sources subject to opacity standards under Section VIII. Such procedures must include the following provisions :

a. Permittee shall conduct a monthly 1-minute visible emission test of each affected source in accordance with EPA Reference Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation.

b. If no visible emissions are observed in six consecutive monthly tests for any affected source, Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during the semi-annual test for any affected source, Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any EPA Reference Method 22 test, Permittee shall conduct a 6-minute test of opacity in accordance with EPA Reference Method 9 of Appendix A to 40 CFR Part 60. The EPA Reference Method 9 test shall begin within one hour of any observation of visible emissions.

H. For affected sources, failure to comply with the OMP developed in accordance with Part I(G) of this Attachment shall be a violation of the standard.

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(b)]

I. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in Part I(L) of this Attachment.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(ii)]

J. Operation and maintenance requirements established pursuant to Section 112 of the Act are enforceable independent of emissions limitations.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii)]

K. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L) of this Attachment), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((2))]

L. Startup, Shutdown, and Malfunction Plan (SSM Plan) for Affected Sources

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.10(d)(5), 40 CFR §63.1354(b)(4), 40 CFR §63.1354(b)(5)]

This Part is applicable to all affected sources and associated air pollution control equipment subject to this permit.

1. Permittee shall implement a startup, shutdown, and malfunction plan (SSM Plan) that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The SSM Plan, developed in accordance with 40 CFR §63.6(e)((3)), is incorporated by reference into this permit.

2. To satisfy the requirement to develop a SSM Plan, Permittee may use the affected source's standard operating procedures manual, or an Occupational Safety and Health Administration or other plan, provided the alternative plans meet all the requirements of 40 CFR §63.6(e)((3)) and are made available for inspection when requested by the Director.

3. Based on the results of a determination made under Part I(K) of this Attachment, the

Director may require that Permittee make changes to the SSM Plan. The Director may require reasonable revisions to a SSM Plan, if the Director finds that the plan :

a. Does not address a startup, shutdown, or malfunction event that has occurred;
b. Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or
c. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

4. If the SSM Plan fails to address an event that meets the characteristics of a malfunction but was not included in the SSM Plan at the time Permittee developed the SSM Plan, Permittee shall revise the SSM Plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective actions for similar malfunctions of process or air pollution control equipment.

5. Permittee shall keep the written SSM Plan on record after it is developed to be made available for inspection, upon request, by the Director for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR Part 63. In addition, if the SSM Plan is revised, Permittee shall keep previous (i.e., superseded) versions of the SSM Plan on record, to be made available for inspection, upon request, by the Director, for a period of 5 years after each revision to the plan.

6. During periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment in accordance with the procedures specified in the SSM Plan.

7. When actions taken by Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures in the affected source's SSM Plan, Permittee shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist", or other effective form of recordkeeping, that confirms conformance with the SSM Plan for the event. In addition, Permittee shall keep records of these events as specified in Paragraph I(L)(9), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual startup, shutdown, and malfunction report required in Sub-Paragraph I(L)(10)(a).

8. If an action taken by Permittee during a startup, shutdown, or malfunction (including an

action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's SSM Plan, Permittee shall record the actions for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event in accordance with Sub-Paragraph I(L)(10)(b).

9. Permittee shall maintain records of the following :

   a. The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);
   b. The occurrence and duration of each malfunction of the air pollution control equipment;
   c. All maintenance performed on the air pollution control equipment;
   d. Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the SSM Plan;
   e. All information necessary to demonstrate conformance with the SSM Plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in the SSM Plan. (The information needed to demonstrate conformance with the SSM Plan may be recorded using a "checklist", or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events).

10. Permittee shall submit the following reports :

    a. If actions taken by Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM Plan, Permittee shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Director semiannually. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half.

    b. If actions taken by Permittee during a startup, shutdown, and malfunction (including actions taken to correct a malfunction) is not consistent with the procedure specified in the SSM Plan, Permittee shall report the actions taken for the event within 2 working days after commencing actions inconsistent with the SSM Plan followed by a letter within 7 working days after the end of the event. The immediate report

required under this Sub-Paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Director within 2 working days after commencing actions inconsistent with the SSM Plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSM Plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

M. Notification, Reporting, Recordkeeping for Affected Sources

1. Notification Requirements

[AAC R18-2-1101(B)(46), 40 CFR §63.1353]

a. Permittee shall comply with the notification requirements of 40 CFR 63, Subpart A for all affected sources subject to this permit.

b. Permittee shall comply with the notification requirements in 40 CFR §63.9 as follows :

(1) Initial notifications as required by 40 CF 63.9(b) through (d). A Title V or 40 CFR Part 70 permit may be used in lieu of the initial notification required under 40 CFR §63.9(b), provided the same information is contained in the permit application as required by 40 CFR §63.9(b). Permit applications shall be submitted by the same due dates as those specified for the initial notification.

(2) Notification of performance tests as required by 40 CFR §63.7 and 40 CFR §63.9(e).

(3) Notification of opacity and visible emission observations required by 40 CFR §63.1349 in accordance with 40 CFR § 63.6(h)(5) and 40 CFR §63.9(h).

(4) Notification as required by 40 CFR §63.9(g), of the date that the continuous emission monitor performance evaluation required by 40 CFR §63.8(e) is scheduled to begin.

(5) Notification of compliance status as required by 40 CFR §63.9(h).

2. Reporting Requirements

[AAC R18-2-1101(B)(46), 40 CFR §63.1354]

a. Permittee shall comply with the reporting requirements of 40 CFR Part 63, Subpart A for all affected sources subject to this permit.

b. Permittee shall comply with the reporting requirements specified in 40 CFR §63.10 of the 40 CFR Part 63, Subpart A, as follows :

(1) As required by 40 CFR §63.10(d)(2), Permittee shall report the results of performance tests as part of the notification of compliance status.

(2) As required by 40 CFR §63.10(d)(3), Permittee shall report the opacity results from tests required by 40 CFR 63.1349.

(3) As required by 40 CFR §63.10(e)(2), Permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring systems required by 40 CFR §63.8(e). Permittee shall submit the report simultaneously with the results of the performance test.

(4) As required by 40 CFR §63.10(e)(2), Permittee shall report the results of the continuous opacity monitoring system performance evaluation conducted under 40 CFR §63.8(e).

(5) As required by 40 CFR §63.10(e)(3), Permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.

(6) Permittee shall submit a summary report semiannually which contains the information specified in 40 CFR §63.10(e)(3)(iv). In addition, the summary report shall include :

(a) All exceedances of maximum control device inlet gas temperature limits specified in Sub-Paragraphs V(A)(1)(d) and V(A)(1)(e) of this Attachment.

(b) All failures to calibrate thermocouples and other temperature sensors as required under Sub-Paragraph V(A)(4)(d) of this Attachment.

(c) The results of any combustion system component inspections conducted within the reporting period as required under Sub-Paragraph V(A)(4)(f) of this Attachment.

(d) All failures to comply with any provision of the OMP developed in accordance with Part I(G) of this Attachment.

(7) If the total continuous monitoring system downtime for any continuous emission monitor or any continuous monitoring system for the reporting period is ten percent or greater of the total operating time for the reporting period, Permittee

shall submit an excess emissions and continuous monitoring system performance report along with the summary report.

3. Recordkeeping Requirements

[AAC R18-2-1101(B)(46), 40 CFR §63.1355]

a. Permittee shall maintain files of all information (including all reports and notifications) in a form suitable and readily available for inspection and review as required by 40 CFR §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

b. Permittee shall maintain records for each affected source as required by 40 CFR §63.10(b)(2) and 40 CFR §63.10(b)(3); and

(1) All documentation supporting initial notifications and notifications of compliance status under 40 CFR §63.9

(2) All records of applicability determination, including supporting analyses.

c. In addition to the recordkeeping requirements in Sub-Paragraph I(M)(3)(b), Permittee shall maintain all records required by 40 CFR §63.10(c) for the continuous monitoring systems.

N. Production Limits

1. Upon completion of Phase II of RIMOD III, the quarry production shall be limited to a combined total of 8,000,000 tons per year (twelve month total calculated at the end of each month) of waste rock and kiln grade stone. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition III(A)]

2. Upon completion of Phase II of RIMOD III, the total clinker production shall be limited to 2.3 million tons per year (twelve month total calculated at the end of each month). This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition III(B)]

3. Upon completion of Phase II of RIMOD III, the blasting at the quarry shall not exceed 268 blasts per year. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition III(C)]

O. At the time that the compliance certifications required by Section VII of Attachment A are submitted, Permittee shall submit reports of all monitoring activities required by this permit, performed in the same six month period as applies to the compliance certification. [AAC R18-2-306.01(A)(6)(a)]

II. OPEN AREAS, ROADWAYS/STREETS, MATERIAL HANDLING, STORAGE PILES

A. Emission Limits/Standards

1. Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles or material handling in excess of 40 % opacity measured in accordance with the Arizona Testing Manual, EPA Reference Method 9.

[AAC R18-2-612]

2. Permittee shall employ at least one of the following reasonable precautions, or any other method as proposed by Permittee and approved by the Director (following compliance with any applicable air permit revision mechanism), to prevent excessive amounts of particulate matter from becoming airborne:

a. Use dust suppressants or soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, or barring access when constructing, using, altering, repairing, demolishing, clearing, or leveling a building or its appurtenances, a driveway, a parking area, or a vacant lot, or when moving or excavating earth.

In addition to the above, the following have been identified as reasonable precautions:

Applying wetting agents, stemming, optimizing blast pattern, controlling oxygen balance of explosives during blast operations, minimize material drop height, temporary paving, road cover, controlling vehicle access, limiting vehicle speed, revegetation, hydro-seeding, hydro-mulching, mulching, wet sweeping, vacuuming, wind fence, wind break, shrouding, skirting, enclosing, contouring, animals, soil adhesives, compaction, agglomeration, inherent moisture content, dust collectors, and encrustation.

[AAC R18-2-604(A)]

b. Apply temporary paving, dust suppressants, wetting down, or detouring when using, repairing, constructing or reconstructing a roadway.

In addition to the above, the following have been identified as reasonable precautions:

Applying wetting agents, controlling vehicle access, limiting vehicle speed, revegetation, hydro-seeding, hydro-mulching, mulching, landscaping, wet sweeping, vacuuming, wind fence, wind break, covering, contouring, usage of soil adhesives, usage of soil stabilizers, compaction, usage of decomposed granite, agglomeration, inherent moisture content, dust collectors, and encrustation.

[AAC R18-2-605(A)]

c. Apply dust suppressants, wetting, or cover the load when transporting materials likely to give rise to airborne dust.

In addition to the above, the following have been identified as reasonable precautions:

Applying wetting agents, minimizing material drop height, limiting vehicle speed, wind break, covering, agglomeration, inherent moisture content, dust collectors, and encrustation.

[AAC R18-2-605(B)]

d. Use spray bars, wetting, wetting agents, dust suppressants, covers, or hoods when crushing, screening, handling, transporting, or conveying material that is likely to result in significant amounts of airborne dust.

In addition to the above, the following have been identified as reasonable precautions:

Minimizing material drop height, wind fence, wind break, shrouding, skirting, enclosing, contouring, inherent moisture content, dust collectors, and agglomeration.

[AAC R18-2-606]

e. Use chemical stabilization, wetting, or covering when stacking, piling or otherwise storing organic or inorganic dust-producing material.

In addition to the above, the following have been identified as reasonable precautions:

Wind fence, wind break, shrouding, skirting, enclosing, covering, contouring, agglomeration, inherent moisture content, dust collectors, and encrustation.

[AAC R18-2-607(A)]

f. Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents.

In addition to the above, the following have been identified as reasonable precautions:

Wetting, wind fence, wind break, shrouding, skirting, enclosing, covering, contouring, inherent moisture content, and agglomeration.

[AAC R18-2-607(B)]

g. Use wetting agents or dust suppressants before the cleaning of any site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

In addition to the above, the following have been identified as reasonable precautions:

Wetting, chip seal, gravel, temporary paving, controlling vehicle access, limiting vehicle speed, revegetation, inherent moisture content, and hydro-seeding.

[AAC R18-2-804(B)]

3. Permittee shall implement the following dust control procedures :

[Permit 1000547 Condition II(A)]

a. Dust Control Procedures for Plant Unpaved Roads

(1) The maximum speed shall be restricted to 15 miles per hour;
(2) The roadways shall be watered frequently enough to assure compliance;
(3) Berms shall be installed around the areas which are not used by traffic to restrict usage;
(4) Spilled materials shall be removed within eight hours of occurrence. This material shall be collected either manually or by using a vacuum equipped truck.

b. Dust Control Procedures for Paved Plant Roadways

(1) The maximum speed shall be restricted to 20 miles per hour;
(2) The paved roadways shall be swept weekly or more frequently, as necessary, to assure compliance.

c. Dust Control Procedures for Material Accumulation Throughout the Plant and Quarry Operational Area

(1) This Condition applies to, but is not limited to, areas below the conveyor systems, transfer points and process and conveyance equipment;
(2) This material shall be collected either manually or by using a vacuum equipped truck. Clean-up shall be performed on an as-needed basis. If the results of the self-imposed clean-up plan/schedule used by Permittee at any time does not meet with the Director's approval, upon receipt of such notification, Permittee shall submit a written clean-up plan/schedule for remedial actions to the Director for approval within 15 days of notice. Following approval, the revised clean-up plan/schedule shall be implemented as soon as practicable.

d. Road Wetting/Stabilizing Procedure

(1) Soil stabilizers shall be used as described in Paragraph II(A)(4) of this Attachment. To the extent that water is used as a wetting agent on a regular basis, to determine the water application intensity, Permittee shall apply the following equation :

$$L = (0.8\ p * d * t) / (100 - C)$$ where :

C = average control efficiency (%)

p = potential average hourly daytime evaporation rate (millimeters/hour)
d = average hourly daytime traffic (per hour)
t = time between applications (hours)
L = application intensity (liters/square meter)

(2) Plant and Quarry roads shall be watered on all operating days except when roads are damp due to normal precipitation.

4. Permittee shall implement the following dust control plans :

[Permit 1000547 Condition II(A)]

a. Phase I Dust Control Plan - Permittee shall develop and submit a dust control plan to ADEQ for approval, to achieve a 65% control efficiency from all unpaved roads during Phase I.
b. Phase II Dust Control Plan - Permittee shall develop and submit a dust control plan to ADEQ for approval, to achieve an 80% control efficiency on the quarry roads and an 85% control efficiency from all other regularly used unpaved roads during Phase II.
c. The Phase I and Phase II Dust Control Plans shall provide for watering or the type of dust suppressant used if other than water, the amount and frequency of application and the recordkeeping necessary to demonstrate the required control efficiency and to verify compliance with the emission standards of AAC R18-2-605 through 607 and 612.
d. Permittee shall continue to implement the Phase I Dust Control Plan.
e. Commencing with the startup of the first Phase II change of RIMOD III, Permittee shall execute the Phase II Dust Control Plan.
f. The quarry road between Twin Peaks Road and the quarry entrance shall be paved and maintained in a paved condition.
g. Prior to startup of the first Phase II change of RIMOD III the quarry road between Twin Peaks Road and Avra Valley Road shall be paved and maintained in a paved condition.
h. Prior to startup of the first Phase II change, all paved roads at the quarry and the paved portions of the quarry shall be controlled by weekly sweeping or equivalent, as necessary to assure compliance with the approved dust control plan.
i. The plant road segments paved in 1995 and 1996 shall be maintained in a paved condition.

5. Permittee shall maintain the roadways paved in 1991 and 1992 in a paved condition. [Permit 1000547 Condition II(A)]

B. Monitoring, Reporting, Recordkeeping

1. Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E), once every month to monitor emissions from all activities subject to this Section.

[AAC R18-2-306(A)(3)(c)]

2. Permittee shall maintain records of the dates on which any of the activities listed in Sub-

Paragraphs II(A)(2)(a) through (g) of this Attachment were performed and control measures employed.

[AAC R18-2-306(A)(3)(c)]

3. In lieu of Paragraph II(B)(2), Permittee may maintain a Non-Point Source Monitoring Plan as a means of monitoring and recordkeeping for any of the activities listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment. The Non-Point Source Monitoring Plan shall be developed and maintained in compliance with the following conditions :

[AAC R18-2-306(A)(3)(c)]

   a. If the Non-Point Source Monitoring Plan has not been submitted to the Director as part of the Class I application form, Permittee shall submit a significant revision pursuant to AAC R18-2-320 stating an intent to rely on a Non-Point Source Monitoring Plan. The Non-Point Source Monitoring Plan shall be submitted with the Significant Revision application.

   b. The Non-Point Source Monitoring Plan shall describe the methods that Permittee will use to comply with the requirements of this Section. The plan shall contain the following minimum elements of information :

      (1) Types of control measures employed on an activity-specific basis;
      (2) Frequency of application of control measure; and
      (3) A system for documenting variations from the strategy outlined in the Non-Point Source Monitoring Plan.

   c. Permittee may add any of the methods already listed in Sub-Paragraphs II(A)(2)(a) through (g) to the list of control methods initially identified in the Non-Point Source Monitoring Plan. Such changes shall be recorded, and a notification shall be sent to the Director within 10 days following the change. In addition, Permittee may add any method approved by the Director following permit issuance pursuant to Paragraph II(A)(2), to the list of control methods identified in the Non-Point Source Monitoring Plan.

4. Permittee shall keep the following records readily available for inspection at the cement plant :

[AAC R18-2-306.01, AAC R18-2-306(A)(3)(c), Permit 1000547 Condition VIII(A)]

   a. Records of watering and chemical dust suppressant applications on unpaved roads at the quarry and the cement plant, as required by the Phase I Dust Control Plan and the Phase II Dust Control Plan.
   b. Maintenance activities conducted on the paved portions of the quarry road, and maintenance performed on the plant road segments which were paved in 1995 and 1996.
   c. Records of sweeping activities or equivalent control application on the paved portions

of the quarry road as required by the Phase II Dust Control Plan.

d. Monthly production of the quarry (waste rock and kiln grade stone), and annual production calculated for the previous 12-month period (after start-up of the first change of Phase II of RIMOD III).

e. Monthly count of the number of blasts, and annual count calculated for the previous 12-month period (after start-up of the first change of Phase II of RIMOD III).

C. Permit Shield

Compliance with this Section shall be deemed compliance with AAC R18-2-604(A), AAC R18-2-605(A), AAC R18-2-605(B), AAC R18-2-606, AAC R18-2-607(A), AAC R18-2-607(B), AAC R18-2-804(B), AAC R18-2-612, and Permit 1000547 for the activities listed in this Part.

[AAC R18-2-325]

III. QUARRY

A. Equipment not subject to New Source Performance Standards

This Part is applicable to the following process sources : (i) equipment identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. Permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any process source, in total quantities in excess of the amounts calculated by the equations set forth below :

(1) For process sources having a process weight rate 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation :

$E = 3.59\ P^{0.62}$, where :

E = the maximum allowable particulate emissions rate in pounds-mass per hour
P = the process weight rate in tons-mass per hour

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation :

$E = 17.31\ P^{0.16}$, where E and P are as defined in Condition III(A)(1)(a)((1)).

[AAC R9-3-522(A)(2) as approved into the Arizona SIP on September 28, 1982, 40 CFR § 52.126(b)(1)]

b. Permittee shall not cause, suffer, allow, or permit the opacity of any plume or effluent to be greater than 40 percent as measured by EPA Reference Method 9.

[AAC R18-2-702(B)]

2. Air Pollution Control Equipment

a. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the process sources subject to this Part :

Dust Collectors - B2-DC1, B3-DC1, B5-DC1, B5-DC2, B5-DC3, B7-DC1.

Paragraph III(A)(2) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. Permittee shall control fugitive emissions from process sources subject to this Part in accordance with the methods listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment.

[AAC R18-2-722(E)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall monitor stack emissions from the process sources subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

4. Testing

Permittee shall conduct performance tests once during the permit term on all process sources subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

The Director shall determine compliance with Sub-Paragraphs III(A)(1)(a) and III(A)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 9, respectively, of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R9-3-522(A)(2) as approved into the Arizona SIP on September 28, 1982, AAC R18-2-702(B), AAC R18-2-722(E), and 40 CFR §52.126(b)(1) for the process sources subject to this Part.

[AAC R18-2-325]

B. Equipment Subject to New Source Performance Standards

This Part is applicable to the following affected facilities : (i) equipment identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. On and after the date on which the performance test required by Paragraph III(B)(4) of this Attachment is completed, Permittee shall not cause to be discharged into the atmosphere from any affected facility any stack emissions which :

(1) Contain particulate matter in excess of 0.05 grams/dry standard cubic meter; and
(2) Exhibit greater than 7 percent opacity. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

[AAC R18-2-901(66), 40 CFR § 60.672(a)]

b. On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup as defined in 40 CFR §60.11, Permittee shall not cause to be discharged into the atmosphere from any affected facility any fugitive emissions which exhibit greater than 10 percent opacity. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

[AAC R18-2-901(66), 40 CFR § 60.672(b)]

c. Permittee shall emit no more than the following from Dust Collector C-07 : (i) 0.501 pounds per hour of particulate matter, and (ii) 0.501 pounds per hour of PM_{10}. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition II(A)(6)]

2. Air Pollution Control Equipment

a. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the affected facilities subject to this Part :

Dust Collectors - B6-DC3 and C-07.

Sub-Paragraph II(C)(2)(a) of this Attachment is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate all affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

a. Permittee shall monitor stack emissions from the affected facilities subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

b. Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E) of this Attachment, once every month to monitor fugitive emissions from the affected facilities subject to this Section.

[AAC R18-2-306(A)(3)(c)]

4. Testing

Within 60 days after achieving the maximum production rate at which an affected facility will be operated, but not later than 180 days after initial startup of such facility, Permittee shall conduct the following performance tests :

[AAC R18-2-901(1), AAC R18-2-901(66), 40 CFR §60.8(a), 40 CFR § 60.675(b), 40 CFR § 60.675(c)]

a. Particulate emissions test on Dust Collector B6-DC3 and Dust Collector C-07 stacks, in accordance with EPA Reference Method 5.
b. Opacity test on stacks and fugitive emissions in accordance with EPA Reference Method 9.

5. Methods of Determining Compliance

a. The Director shall determine compliance with Sub-Paragraphs III(B)(1)(a) and III(B)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-901(1), 40 CFR §60.11(b)]

b. For the purposes of submitting compliance certifications or establishing whether Permittee has violated or is in violation of Sub-Paragraphs III(B)(1)(a) and III(B)(1)(b), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the affected facilities subject to this Part would have been in compliance with Sub-Paragraphs III(B)(1)(a) and III(B)(1)(b) if the appropriate performance or compliance test or procedure had been performed.

[AAC R18-901(1), 40 CFR §60.11(g)]

c. The Director shall determine compliance with Sub-Paragraph III(B)(1)(c) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §60.672(a) and 40 CFR §60.672(b), 40 CFR §60.675(b), 40 CFR §60.672(c), and Permit 1000547 Condition II(A) for the affected facilities subject to this Part.

[AAC R18-2-325]

IV. COAL MILL SYSTEM

A. Equipment not subject to New Source Performance Standards

This Part is applicable to the following process sources : (i) equipment identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

Permittee shall not cause, suffer, allow, or permit the opacity of any plume or effluent to be greater than 40 percent as measured by EPA Reference Method 9.

[AAC R18-2-702(B)]

2. Air Pollution Control

Permittee shall control fugitive emissions from process sources subject to this Part in accordance with the methods listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment.

[AAC R18-2-716(E)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E), once every month to monitor emissions from the process sources subject to this Part.

[AAC R18-2-306(A)(3)(c)]

4. Testing

Permittee shall conduct performance tests once during the permit term on all process sources subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR 60, Subpart A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

The Director shall determine compliance with Paragraph IV(A)(1) based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R18-2-702(B) for the process sources subject to this Part.

[AAC R18-2-325]

B. Equipment subject to New Source Performance Standards

This Part is applicable to the following affected facilities : (i) equipment identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. Permittee shall not cause to be discharged into the atmosphere any gases which exhibit opacity in excess of 20 percent from any of the affected facilities subject to this Part. This Part is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

[AAC R18-2-901(10), 40 CFR §60.252(c)]

b. Permittee shall comply with the following emission limits :

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

(1) Dust Collector S-07 : 1.11 pounds per hour of particulate matter, and 1.11

pounds per hour of $PM_{10.}$

(2) Dust Collector S-13 : 0.049 pounds per hour of particulate matter, and 0.049 pounds per hour of PM_{10}.

Sub-Paragraph IV(B)(1)(b) of this Attachment is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

2. Air Pollution Control Equipment

a. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the affected facilities subject to this Part :

Dust Collectors : S-13, S-07.

Sub-Paragraph IV(B)(2)(a) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate all affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

a. Permittee shall monitor stack emissions from the affected facilities subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

b. Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E) of this Attachment, once every month to monitor fugitive emissions from the affected facilities subject to this Section.

[AAC R18-2-306(A)(3)(c)]

4. Testing

a. Permittee shall conduct performance tests once during the permit term on all affected facilities subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR 60, Subpart A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

b. Once during the term of this permit, Permittee shall conduct performance tests in accordance with EPA Reference Method 5 of 40 CFR 60, Subpart A on Dust Collectors S-07 and S-13.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

a. The Director shall determine compliance with Sub-Paragraph IV(B)(1)(a) of this Attachment based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR 60, Appendix A.

[AAC R18-2-901(1), 40 CFR §60.11(b)]

b. For the purposes of submitting compliance certifications or establishing whether Permittee has violated or is in violation of Sub-Paragraph IV(B)(1)(a), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the affected facilities subject to this Part would have been in compliance with Sub-Paragraph IV(B)(1)(a) if the appropriate performance or compliance test or procedure had been performed.

[AAC R18-2-901(1), 40 CFR §60.11(g)]

c. The Director shall determine compliance with Sub-Paragraph IV(B)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR § 60.252(c) and Permit 1000547 Condition II(A) for the affected facilities subject to this Part.

[AAC R18-2-325]

C. Equipment subject to National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart LLL

As specified in Column 8 of Attachment D, coal preparation plant equipment subject to National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart LLL, shall comply with Section VIII of this Attachment.

V. PYROPROCESSING SYSTEM

A. Kilns 1, 2, 3, 4

The affected sources subject to this Part are : Each of Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill.

1. Emission Limits/Standards

a. Permittee shall not cause to be discharged onto the atmosphere from any kiln or in-line kiln/raw mill, any gases which :

(1) Contain particulate matter in excess of 0.15 kilogram/Megagram (0.30 pounds per ton) of feed (dry basis) to the kiln. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).
[AAC R18-2-1101(B)(46), 40 CFR §63.1343(b)(1), AAC R9-3-505(B)(1)(a) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR § 60.62(a)(1)]

(2) Exhibit opacity greater than 20 percent. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).
[AAC R18-2-1101(B)(46), 40 CFR §63.1343(b)(2), AAC R9-3-505(B)(1)(b) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR §60.62(a)(2)]

(3) Contain dioxins/furans (D/F) in excess of :
[AAC R18-2-1101(B)(46), 40 CFR §63.1343(b)(3)]

(a) 0.2 nanograms per dry standard cubic meter (8.7×10^{-11} grains per dry standard cubic foot) (TEQ) corrected to seven percent oxygen; or

(b) 0.40 nanograms per dry standard cubic meter (1.7×10^{-10} grains per dry standard cubic foot) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204EC (400EF) or less.

Condition V(A)(1)(a)((3)) of this Attachment is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

(4) Contain an amount in excess of 6 pounds of sulfur oxides, calculated as sulfur dioxide, per ton cement kiln feed. This Condition is applicable only to Kilns 1, 2, and 3.
[AAC R18-2-705(D)]

(5) Permittee shall not cause to be discharged onto the atmosphere from Kiln 4 in-line kiln/raw mill, any gases which contain in excess of : (i) 41.774 pounds per hour of particulate matter, (ii) 41.774 pounds per hour of PM_{10}. This Condition applies only after Kiln 4 in-line kiln/raw mill commences operation in RIMOD 3 Phase II configuration. This Condition is designated as a material permit

condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

b. Total emissions of carbon monoxide from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill shall not exceed 5069 tons per year (twelve month total calculated at the end of each month). This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547, Condition II(A)]

c. Total emissions of nitrogen oxides from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill shall not exceed 5144 tons per year (twelve month total calculated at the end of each month). This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547, Condition II(A)]

d. Permittee shall operate Kilns 1, 2, and 3 such that the temperature of the gas at the inlet to the kiln particulate matter control device does not exceed the temperature limit specified in Sub-Paragraph V(A)(1)(e) of this Attachment. Permittee shall operate the Kiln 4 in-line kiln/raw mill such that :

[AAC R18-2-1101(B)(46), 40 CFR §63.1344(a)]

(1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust specified in Sub-Paragraph V(A)(1)(e) of this Attachment and established during the performance test when the raw mill was operating is not exceeded.

(2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in Sub-Paragraph V(A)(1)(e) of this Attachment and established during the performance test when the raw mill was not operating, is not exceeded.

Sub-Paragraph V(A)(1)(d) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

e. The temperature limit for kilns and in-line kiln/raw mills shall be determined in accordance with Condition V(A)(5)(d)((4)) of this Attachment. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

[AAC R18-2-1101(B)(46), 40 CFR §63.1344(b)]

2. Fuel Limitations

a. Permittee shall comply with Section X of this Attachment.

[Permit M191365P1-99 Condition IV, Permit 1000547 Condition VII]

b. Permittee shall apply for a significant permit revision in accordance with AAC R18-2-320 to use a fuel that is not listed in Part X(A). Permittee may be required to conduct performance testing to test the new fuel. Required performance tests may include, but not be limited to, any of the following :

[Permit M191365P1-99 Condition IV, AAC R18-2-319(A)(6)]

(1) Stack Gas Parameters, Velocity, Volumetric Flow Rate, Gas Analysis for CO_2, O_2, excess air, and dry molecular weight and moisture, EPA Reference Methods 1-4
(2) CO, EPA Reference Method 10
(3) NO_x, EPA Reference Method 7E
(4) VOC, EPA Reference Method 25
(5) SO_2, EPA Reference Method 6C
(6) TSP and PM_{10}, EPA Reference Methods 5D and 201 A
(7) Sulfuric Acid Mist, EPA Reference Method 8
(8) H_2S and TRS, EPA Reference Method 11
(9) Total Fluoride, EPA Reference Method 13B
(10) Dioxins (PCDD), Furans (PCDF), Polynuclear Aromatic Hydrocarbons, and Polychlorinated Biphenyls (PCB) Modified EPA Method 5 and CARB Reference Methods 428 and 429
(11) Trace Elements : As, Be, Cd, Cu, Hg, Mn, Ni, Pb, and Zn, CARB Method 436
(12) Hexavalent and Total Cr, CARB Method 425
(13) HCl and HF, CARB Methods 421 and 13B
(14) Volatile Organic Carbons, CARB Method 410B

3. Air Pollution Control Equipment

a. Permittee shall operate Dust Collector H5-5-GB to control particulate emissions from Kiln 1, Kiln 2, and Kiln 3. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. Permittee shall operate Dust Collector H5-GB or Dust Collector K-50 to control particulate emissions from Kiln 4 in-line kiln/ raw mill. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment, subject to this Part, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))((i))]

4. Monitoring, Reporting, Recordkeeping

a. Permittee shall monitor opacity at each point where emissions are vented from Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill in accordance with the following:

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(c)]

(1) Permittee shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the particulate matter control devices to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by 40 CFR Part 63, Subpart A, and according to Performance Specification - 1 of 40 CFR 60, Appendix B.

(2) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 20 percent. If the average opacity for any 6-minute block period exceeds 20 percent, this shall constitute a violation of the standard.

b. Permittee shall install, calibrate, maintain, and operate a particulate matter continuous emissions monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill. All requirements relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS are deferred pending further rulemaking.

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(k)]

c. Until such time that a PM CEMS is installed, Permittee shall monitor particulate matter emissions from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill in the following manner :

[AAC R18-2-306(A)(3)(c)]

(1) Permittee shall evaluate opacity measurements from the COM system on a 2-hour rolling average. If the 2-hour rolling average opacity exceeds 15 percent, Permittee shall initiate investigation of the control equipment within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the particulate matter standard in Condition V(A)(1)(a)((1)) of this Attachment. If the 2-hour rolling average opacity remains above 15 percent for 72 consecutive hours after the first occurrence, Permittee shall submit a compliance schedule to ADEQ in accordance with Part XII(D) of Attachment A.

(2) Permittee shall log in ink or in electronic format and maintain a record of 2-hour rolling average opacity measurements performed in accordance with Condition V(A)(4)(c)((1)) of this Attachment, and of any corrective actions taken. The record of corrective actions taken shall include the date and time that the 2-hour rolling average opacity exceeded 15 percent, and the date and time the corrective action, if any, was completed.

d. Permittee shall monitor D/F emissions in accordance with the following :

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(f)]

(1) Permittee shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill at the inlet to, or upstream of, the particulate matter control devices.

(a) The recorder response range shall include zero and 1.5 times either of the average temperatures established according to the requirements in Condition V(A)(5)(d)((4)) of this Attachment.

(b) The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference subject to the approval of the Director.

(2) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

(3) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

(4) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

e. Permittee shall maintain and operate continuous emission monitoring systems to measure carbon monoxide and nitrogen oxides mass emissions from Kiln 1,2,3, and Kiln 4 in-line kiln/raw mill, commencing with the start-up of the roller mill. The following requirements shall be met :

[AAC R18-2-306(A)(3)(c), AAC R18-2-312(H)(3), Permit 1000547 Condition VI, Permit 1001331]

(1) Permittee shall follow the monitoring performance specifications of 40 CFR Part 60 (§60.7, §60.8,§ 60.11, §60.13, Appendix B and Appendix F). Permittee shall install, certify, operate, and maintain a continuous emission monitoring system and a flow monitoring system with the automated data acquisition and handling system for measuring and recording carbon monoxide and nitrogen oxides concentration (in ppm), an oxygen (O_2) or carbon dioxide (CO_2) diluent gas monitor, volumetric flow in dry standard cubic feet per minute and carbon monoxide and nitrogen oxides mass emissions (in lb/hr) discharged to the atmosphere.

(2) Data recovery (availability) shall be 90 percent or greater per 90 day operating

period (comprised of the previous 2160 hours when kiln emissions were vented through the stack) calculated at the end of each month.

(3) Instrument span shall be such that the expected output is 50 to 70 percent of span.

(4) All data shall be retained on site in electronic form and shall be available for review by any authorized ADEQ representative.

(5) Permittee shall continue to implement the ADEQ approved Quality Assurance/Quality Control Plan which includes procedures for dealing with data gaps based on the procedures contained in 40 CFR Part 75, Subpart D (40 CFR § 75.30).

(6) Permittee shall maintain a file of all measurements, including the continuous monitoring system and performance testing data; continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These data shall be recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records.

(7) Commencing with the start-up of the roller mill, Permittee shall calculate and record the total carbon monoxide and nitrogen oxides emissions from the four kilns at the end of each month, for the preceding twelve month period. This record shall be retained for at least five years following the date of such measurements.

This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(c).

f. Permittee shall conduct an inspection of the components of the combustion system of each kiln at least once per year.

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(i)]

g. Permittee shall comply with the SSM Plan and Monitoring, Reporting, and Recordkeeping requirements in Part I(L) and Part I(M).

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.1353, 40 CFR §63.1354, 40 CFR §63.1355]

h. All excess emissions shall be reported : (i) in accordance with Section XII of Attachment A, and (ii) on a quarterly basis in the form of an Excess Emissions and Continuous Monitoring System Performance Report.

[AAC R18-2-310.01, AAC R18-2-306(A)(3)(c)], 40 CFR §60.7]

i. Permittee shall keep the following records readily available for inspection at the cement plant :

[AAC R18-2-306.01, AAC R18-2-705(E), AAC R18-2-306(A)(3)(c), Permit 1000547 Condition VIII(A)]

(1) The total quantity of each raw material processed in each kiln per day.
(2) The type and amount of each fuel component utilized in each kiln per day.
(3) Monthly emissions of carbon monoxide and nitrogen oxides from the four cement kilns, and annual emissions calculated at the end of each month for the preceding twelve month period.

5. Testing

a. Permittee shall conduct initial performance tests on Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill before December 6, 2002, in accordance with Sub-Paragraphs V(A)(5)(c) and V(A)(5)(d) of this Attachment.

[AAC R18-2-1101(B)(1), 40 CFR §63.7(a)(2)(iii)]

b. Permittee shall conduct subsequent tests according to the following schedule :

(1) Performance tests required under Sub-Paragraph V(A)(5)(c) of this Attachment shall be repeated every year.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

(2) Performance tests required under Sub-Paragraph V(A)(5)(d) of this Attachment shall be repeated every 30 months.

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(d)]

(3) Permittee shall repeat the performance tests in Sub-Paragraphs V(A)(5)(c) and V(A)(5)(d) within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test. For the purposes of this permit condition, the normal use of the fuels, fuel blends, raw material or raw material blends listed in Section X of this Attachment does not constitute a "significant change."

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(e)]

c. Permittee shall demonstrate initial compliance with Condition V(A)(1)(a)((1)) for Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill by conducting a performance test in accordance with Condition V(A)(5)(c)((1)) through Condition V(A)(5)(c)((3)) of this Attachment. Permittee shall demonstrate initial compliance with Condition V(A)(1)(a)((1)) by conducting separate performance tests as specified in Condition V(A)(5)(c)((1)) through Condition V(A)(5)(c)((3)) while the raw mill of the Kiln 4 in-line kiln/raw mill is under normal operating conditions and while the raw mill is not operating. The opacity exhibited during the period of the test conducted in accordance with Condition V(A)(5)(c)((1)) through Condition V(A)(5)(c)((3)) shall be determined as required by Condition V(A)(5)(c)((4)) :

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(b)(1)]

(1) EPA Reference Method 5 of 40 CFR 60, Appendix A shall be used to determine particulate matter emissions. Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonable expected to occur. Each run shall be conducted for at least one hour, and the minimum sampling volume shall be 0.85 dry standard cubic meter (30 dry standard cubic feet). The average of the three runs shall be used to determine compliance. A determination of the particulate matter collected in the impingers ("back half") of the EPA Reference Method 5 particulate matter sampling train is not required to demonstrate initial compliance with the particulate matter standard. However, this shall not preclude ADEQ from requiring a determination of the "back half" for other purposes.

(2) Suitable methods shall be used to determine the kiln and in-line kiln/raw mill feed rate, except for fuels, for each run.

(3) The emission rate, E, of particulate matter shall be computed for each run using the following equation :

$E = (C_s Q_{sd}) / P$ where :

E = emission rate of particulate matter (kilogram)/(Megagram) of kiln feed;
C_s = concentration of particulate matter, (kilogram)/(dry standard cubic meter);
Q_{sd} = volumetric flow rate of effluent gas, (dry standard cubic meter)/hour; and
P = total kiln feed (dry basis), (Megagram)/hour.

(4) The opacity exhibited during the period of the tests conducted in accordance with Condition V(A)(5)(c)((1)) shall be determined through the use of a COM. The maximum six-minute average opacity during the three EPA Reference Method 5 test runs shall be determined during each EPA Reference Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limit in Condition V(A)(1)(a)((2)) of this Attachment.

d. Permittee shall demonstrate compliance with the emission standard in Condition V(A)(1)(a)((3)) of this Attachment by conducting a performance test in accordance with EPA Reference Method 23 of 40 CFR Part 60, Appendix A. Permittee shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating.

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(b)(3)]

(1) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The duration of each run shall be at least three hours and the sample volume for each run shall be at least 2.5 dry standard cubic meter (90 dry standard cubic feet). The concentration

shall be determined for each run and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.

(2) The temperature at the inlet to the kiln or in-line kiln/raw mill particulate matter control device shall be continuously recorded during the period of the EPA Reference Method 23 test, and the continuous temperature records shall be included in the performance test report.

(3) One minute average temperatures shall be calculated for each minute of each run of the test.

(4) The run average temperature shall be calculated for each run, and the average of the run average temperatures shall be determined and included in the performance test report and shall determine the applicable temperature limit in accordance with Sub-Paragraph V(A)(1)(e) of this Attachment.

e. Permittee shall conduct a performance test once in the permit term in accordance with EPA Reference Method 6 of 40 CFR Part 60, Appendix A, to measure the amount of sulfur dioxide being emitted into the atmosphere from Kilns 1, 2, and 3. The tests shall be conducted while burning the fuel or fuel mix containing the highest possible sulfur content for the year.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

6. Methods for Determining Compliance

a. The Director shall determine compliance with Condition V(A)(1)(a)((1)) and Condition V(A)(1)(a)((3)) based on the results of the performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 23 of 40 CFR 60, Appendix A, respectively.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(f)(2)(i)]

b. The Director shall determine compliance with Condition V(A)(1)(a)((1)), Condition V(A)(1)(a)((3)), Sub-Paragraph V(A)(1)(d), and Sub-Paragraph V(A)(1)(e) by evaluation of Permittee's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in Part I(G), Part I(H), Part I(I), Part I(J), Part I(K), Part I(L), and Paragraph V(A)(4).

[AAC R18-2-1101(B)(1), 40 CFR §63.6(f)(2)(ii)]

c. The Director shall determine compliance with Condition V(A)(1)(a)((2)) based on COM system data, as stated in Condition V(A)(4)(a)((2))

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(h)(2)(i), 40 CFR §63.1350(c)(3)]

d. The Director shall determine compliance with Sub-Paragraph V(A)(1)(b) and Sub-Paragraph V(A)(1)(c) based on the results of the continuous emissions monitoring systems

installed, maintained, and operated as required by Sub-Paragraph V(A)(4)(e).

[AAC R18-2-306.01, AAC R18-2-312(H)(3), Permit 1000547 Condition VI]

e. The Director shall determine compliance with Condition V(A)(1)(a)((4)) and Condition V(A)(1)(a)((5)) based on the results of the performance tests conducted in accordance with EPA Reference Method 6 and EPA Reference Method 5 of 40 CFR 60, Appendix A, respectively. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

f. Operation and maintenance requirements in this Part are enforceable independent of emissions limitations. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L)), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii), 40 CFR §63.6(e)((2))]

7. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §63.1343(b), AAC R9-3-505(B)(1) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR §60.62(a), AAC R18-2-705(D), 40 CFR §63.1344, 40 CFR §63.1349(b)(1), 40 CFR §63.1349(b)(3), 40 CFR §63.1349(d), 40 CFR §63.1349(e), 40 CFR §63.1350(c), 40 CFR §63.1350(f), 40 CFR §63.1350(k), 40 CFR §63.1350(i), 40 CFR §63.1353, 40 CFR §63.1354, and §63.1355, for the affected sources subject to this Part.

[AAC R18–2-325]

B. Clinker Coolers 1, 2, 3, 4

This Part is applicable to the following affected sources : Clinker Coolers 1, 2, 3, and 4.

1. Emission Limits/Standards

Permittee shall not cause to be discharged into the atmosphere from any clinker cooler, any gases which :

a. Contain particulate matter in excess of 0.050 kilogram/Megagram (0.10 pounds per ton) of feed (dry basis) to the kiln. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

[AAC R18-2-1101(B)(46), 40 CFR §63.1345(a)(1), AAC R9-3-505(B)(2)(a) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR §60.62(b)(1)]

b. Exhibit opacity greater than 10 percent. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).
[AAC R18-2-1101(B)(46), 40 CFR §63.1345(a)(2), AAC R9-3-505(B)(2)(b) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR §60.62(b)(2)]

2. Air Pollution Control Equipment

a. Permittee shall operate Dust Collector H2-1-DC to control particulate emissions from Clinker Cooler 1. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).
[AAC R18-2-306(A)(2)]

b. Permittee shall operate Dust Collector H2-2-DC to control particulate emissions from Clinker Cooler 2. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).
[AAC R18-2-306(A)(2)]

c. Permittee shall operate Dust Collector H2-3-DC to control particulate emissions from Clinker Cooler 3. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).
[AAC R18-2-306(A)(2)]

d. Permittee shall operate Dust Collector H2-GB to control particulate emissions from Clinker Cooler 4. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).
[AAC R18-2-306(A)(2)]

e. At all times, including periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment, subject to this Part, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.
[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))((i))]

3. Monitoring, Reporting, Recordkeeping

a. Permittee shall monitor opacity at the point where emissions are vented from Clinker Cooler 4, in accordance with the following :
[AAC R18-2-1101(B)(1), 40 CFR §63.1350(d)(1,3)]

(1) Permittee shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the clinker cooler particulate matter control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by 40 CFR Part 63, Subpart A, and according to Performance Specification - 1 of 40 CFR Part 60, Appendix B.

(2) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10 percent. If the average opacity for any 6-minute block period exceeds 10 percent, this shall constitute a violation of the standard.

b. Permittee shall monitor opacity at each point where emissions are vented from Clinker Coolers 1, 2, and 3, in accordance with the following :

[AAC R18-2-1101(B)(1), 40 CFR §63.1350(d)(2,3)]

(1) Perform daily visual opacity observations of each stack in accordance with the procedures of EPA Reference Method 9 of 40 CFR 60, Appendix A. The EPA Reference Method 9 test shall be conducted while each clinker cooler is operating at the highest load or capacity level reasonably expected to occur within the day. The duration of the EPA Reference Method 9 test shall be at least 30 minutes each day.

(2) Use the EPA Reference Method 9 procedures to monitor and record the average opacity for each six-minute period during the test.

(3) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10 percent. If the average opacity for any 6-minute block period exceeds 10 percent, this shall constitute a violation of the standard.

c. All excess emissions shall be reported : (i) in accordance with Section XII of Attachment A, and (ii) on a quarterly basis in the form of an Excess Emissions and Continuous Monitoring System Performance Report.

[AAC R18-2-310.01, AAC R18-2-306(A)(3)(c), 40 CFR §60.7]

d. Permittee shall comply with the SSM Plan and Monitoring, Reporting, and Recordkeeping requirements in Part I(L) and Part I(M).

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.1353, 40 CFR §63.1354, 40 CFR §63.1355]

e. Permittee shall record the total quantity of clinker produced per day. At the completion of the first change of Phase II of RIMOD III, Permittee shall record at the end of every month, the annual clinker production calculated for the previous 12-month period. Permittee shall keep these records readily available for inspection at the cement plant.

[AAC R18-2-306.01, AAC R18-2-705(E), AAC R18-2-306(A)(3)(c), Permit 1000547 Condition VIII(A)]

4. Testing

Permittee shall conduct initial performance tests on Clinker Coolers 1, 2, 3, and 4 before December 6, 2002, in accordance with Conditions V(A)(5)(c)((1)) through V(A)(5)(c)((3))

of this Attachment. For Clinker Cooler 4, the opacity exhibited during the period of the tests conducted in accordance with Condition V(A)(5)(c)((1)) shall be determined through the use of a COM. For Clinker Coolers 1, 2, and 3, the opacity exhibited during the period of the tests conducted in accordance with Condition V(A)(5)(c)((1)) shall be determined by EPA Reference Method 9 of 40 CFR 60, Appendix A. The maximum six-minute average opacity during the three EPA Reference Method 5 test runs shall be determined during each EPA Reference Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limit in Sub-Paragraph V(B)(1)(b) of this Attachment.

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.7(a)(2)(iii), 40 CFR §63.1349(b)(1)]

5. Methods of Determining Compliance

a. The Director shall determine compliance with Sub-Paragraph V(B)(1)(a) based on the results of the performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR 60, Appendix A.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(f)(2)(i)]

b. The Director shall determine compliance with Sub-Paragraph V(B)(1)(a) by evaluation of Permittee's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in Part I(G), Part I(H), Part I(I), Part I(J), Part I(K), Part I(L), and Paragraph V(B)(3) of this Attachment.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(f)(2)(ii)]

c. The Director shall determine compliance with Condition V(B)(1)(b) for Clinker Cooler 4 based on COM system data, as stated in Condition V(B)(3)(a)((2)) of this Attachment.

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(h)(2)(i), 40 CFR §63.1350(d)(3)]

d. The Director shall determine compliance with Condition V(B)(1)(b) for Clinker Coolers 1, 2, and 3 based on performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR 60, Appendix A.

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(h)(2)(i), 40 CFR §63.1350(d)(3)]

e. Operation and maintenance requirements in this Part are enforceable independent of emissions limitations. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L)), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii), 40 CFR §63.6(e)((2))]

6. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §63.1345(a), AAC R9-3-505(B)(2) as approved into the Arizona SIP on September 28, 1982, 40 CFR

§52.126(b)(3), 40 CFR §60.62(b), 40 CFR §63.1350(d), 40 CFR §63.1349(b)(1), 40 CFR §63.1353, 40 CFR §63.1354, and §63.1355, for the affected sources subject to this Part.

[AAC R18–2-325]

VI. RAW MILLS AND FINISH MILLS

This Section is applicable to the following affected sources : (i) Raw Mills - AC1, AC2, AC3, AC4, and (ii) Finish Mills - CM1, CM2, CM3, CM4, CM5, CM6, CM7, D2, and D3

A. Emission Limits/Standards

1. Permittee shall not cause to be discharged into the atmosphere, from the mill sweep or air separator air pollution control devices any gases which exhibit greater than 10 percent opacity. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

[AAC R18-2-1101(B)(46), 40 CFR §63.1347]

2. Permittee shall comply with the following emission limits :

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

a. Dust Collector CM7-DC1 : 1.34 pounds per hour of particulate matter, and 0.73 pounds per hour of PM_{10}.
b. Dust Collector CM7-DC2 : 0.61 pounds per hour of particulate matter, and 0.33 pounds per hour of PM_{10}.
c. Dust Collector CM7-DC3 : 3.83 pounds per hour of particulate matter, and 2.08 pounds per hour of PM_{10}.
d. Dust Collector CM7-DC4 : 1.04 pounds per hour of particulate matter, and 0.57 pounds per hour of PM_{10}.
e. Dust Collector CM7-DC5 : 0.71 pounds per hour of particulate matter, and 0.38 pounds per hour of PM_{10}.

B. Air Pollution Control Equipment

1. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the affected sources subject to this Section :

Currently Existing Dust Collectors : AC1-DC1, AC2-DC1, AC3-DC1, AC4-DC1, CM1-DC1, CM2-DC1, CM3-DC1, CM4-DC1, CM5-DC1, CM6-DC1, CM7-DC1, D2-1-DC1, D3-1-DC1

RIMOD 3 Phase II Dust Collectors : CM7-DC4, CM7-DC5

Paragraph VI(B)(1) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

2. At all times, including periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment, subject to this Section, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))((i))]

C. Monitoring, Reporting, Recordkeeping

1. Permittee shall monitor opacity of emissions from the raw mills and finish mills by conducting daily visual emissions observations of the mill sweep and air separator particulate matter control devices of these affected sources, in accordance with the procedures of EPA Reference Method 22 of 40 CFR 60, Appendix A. The EPA Reference Method 22 test shall be conducted while the affected source is operating at the highest load or capacity level reasonable expected to occur within the day. The duration of the EPA Reference Method 22 test shall be six minutes. If visible emissions are observed during any EPA Reference Method 22 visible emissions test, Permittee shall :

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(e)]

a. Initiate, within one-hour, the corrective actions specified in the site-specific OMP developed in accordance with Part I(G) of this Attachment.

b. Within 24 hours of the end of the EPA Reference Method 22 test in which visible emissions were observed, conduct a visual opacity test of each stack from which visible emissions were observed in accordance with EPA Reference Method 9 of 40 CFR 60, Appendix A. The duration of the EPA Reference Method 9 test shall be thirty minutes.

2. Permittee shall comply with the SSM Plan and Monitoring, Reporting, and Recordkeeping requirements in Part I(L) and Part I(M) of this Attachment.

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.1353, 40 CFR §63.1354, 40 CFR §63.1355]

D. Testing

1. Before December 6, 2002, Permittee shall demonstrate initial compliance with the emission standards in Part VI(A)(1) of this Attachment for the affected sources subject to this Section by conducting tests in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A. The performance tests shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The maximum six-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial

compliance with the standard. The duration of the EPA Reference Method 9 performance test shall be three hours (30 6-minute averages), except that the duration of the EPA Reference Method 9 performance test may be reduced to one-hour if the following conditions apply :

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.7(a)(2)(iii), 40 CFR §63.1349(b)(2)]

a. There are no individual readings greater than 10 percent opacity; and
b. There are no more than three readings of 10 percent for the first one hour period.

2. Once during the term of this permit, Permittee shall conduct performance tests in accordance with EPA Reference Method 5 of 40 CFR Part 60, Subpart A on Dust Collectors CM7-DC1, CM7-DC2, CM7-DC3, CM7-DC4, CM7-DC5

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

E. Methods of Determining Compliance

1. The Director shall determine compliance with Paragraphs VI(A)(1) of this Attachment based on the results of tests performed in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(h)(2)(i)]

2. Operation and maintenance requirements in this Section are enforceable independent of emissions limitations. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L)), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii), 40 CFR §63.6(e)((2))]

3. The Director shall determine compliance with Paragraph VI(A)(2) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

F. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR §63.1347, 40 CFR §63.1349(b)(2), 40 CFR §63.1350(e), 40 CFR §63.1353, 40 CFR §63.1354, §63.1355, and Permit 1000547 Condition II(A), for the affected sources subject to this Section.

[AAC R18-2-325]

VII. PROCESS SOURCES SUBJECT TO AAC R18-2-705 and AFFECTED FACILITIES SUBJECT TO 40 CFR 60, Subpart F

A. Process Sources subject to AAC R18-2-705

This Part is applicable to the following process sources : (i) equipment as identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. Permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any process source, in total quantities in excess of the amounts calculated by the equations set forth below :

(1) For process sources having a process weight rate 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation :

$E = 3.59\ P^{0.62}$, where :

E = the maximum allowable particulate emissions rate in pounds-mass per hour
P = the process weight rate in tons-mass per hour

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation :

$E = 17.31P^{0.16}$, where E and P are as defined in Condition VII(A)(1)(a)((1)).

[AAC R9-3-505(B)(3) as approved into the Arizona SIP on September 28, 1982, 40 CFR § 52.126(b)(1)]

b. Permittee shall not cause, suffer, allow, or permit the opacity of any plume or effluent from any process source to be greater than 20 percent as measured by EPA Reference Method 9.

[AAC R18-2-705(C)]

2. Air Pollution Control Equipment

Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the process sources subject to this Part :

Dust Collectors - B8-DC1, B8-DC2, B9-DC1, B9-DC2, B9-DC3, B9-DC5, C2-DC1,

C2-DC4.

Paragraph VII(A)(2) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall monitor stack emissions from the process sources subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

4. Testing

Permittee shall conduct performance tests once during the permit term on all process sources subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

The Director shall determine compliance with Sub-Paragraphs VII(A)(1)(a) and VII(A)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 9, respectively, of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R9-3-505(B)(3) as approved into the Arizona SIP on September 28, 1982, AAC R18-2-705(C), and 40 CFR §52.126(b)(1) for the process sources subject to this Part.

[AAC R18-2-325]

B. Affected Facilities subject to 40 CFR 60, Subpart F

This Part is applicable to the following affected facilities: (i) equipment as identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

Permittee shall not cause to be discharged into the atmosphere any gases which exhibit opacity in excess of 10 percent from affected facilities subject to this Part. This Paragraph

is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).
[AAC R18-2-901(10), 40 CFR §60.62(c)]

2. Air Pollution Control Equipment

At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate all affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E) of this Attachment, once every two weeks to monitor emissions from the affected facilities subject to this Part.
[AAC R18-2-306(A)(3)(c)]

4. Methods of Determining Compliance

a. The Director shall determine compliance with Paragraph VII(B)(1) based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.
[AAC R18-901(1), 40 CFR §60.11(b)]

b. For the purposes of submitting compliance certifications or establishing whether Permittee has violated or is in violation of Paragraph VII(B)(1), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the affected facilities subject to this Part would have been in compliance with Paragraph VII(B)(1) if the appropriate performance or compliance test or procedure had been performed.
[AAC R18-901(1), 40 CFR §60.11(g)]

5. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §60.62(c) for the affected facilities subject to this Part.
[AAC R18-2-325]

VIII. AFFECTED SOURCES SUBJECT TO 40 CFR 63, Subpart LLL EXCEPT FOR KILNS, COOLERS, RAW MILLS, and FINISH MILLS

This Section is applicable to the following affected sources : (i) equipment as identified in Column 8 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

A. Emission Limits/Standards

1. Permittee shall not cause to be discharged into the atmosphere any gases which exhibit opacity in excess of 10 percent from affected sources subject to this Section. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

[AAC R18-2-1101(B)(46), 40 CFR §63.1348]

2. Permittee shall comply with the following emission limits :

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

a. Dust Collector C2-DC3 : 0.334 pounds per hour of particulate matter, and 0.334 pounds per hour of PM_{10}.
b. Dust Collector D4-DC2 : 0.668 pounds per hour of particulate matter, and 0.668 pounds per hour of PM_{10}.
c. Dust Collector D4-DC1 : 1.671 pounds per hour of particulate matter, and 1.671 pounds per hour of PM_{10}.
d. Dust Collector F2-DC4 : 0.062 pounds per hour of particulate matter, and 0.062 pounds per hour of PM_{10}.
e. Dust Collector AC-DC1 : 0.373 pounds per hour of particulate matter, and 0.373 pounds per hour of PM_{10}.
f. Dust Collector CM-DC17 : 0.497 pounds per hour of particulate matter, and 0.497 pounds per hour of PM_{10}.
g. Dust Collector D2-DC4 : 0.166 pounds per hour of particulate matter, and 0.166 pounds per hour of PM_{10}.
h. Dust Collector L-04 : 0.373 pounds per hour of particulate matter, and 0.373 pounds per hour of PM_{10}.
i. Dust Collector G-04 : 0.445 pounds per hour of particulate matter, and 0.445 pounds per hour of PM_{10}.
j. Dust Collector G-21 : 0.356 pounds per hour of particulate matter, and 0.356 pounds per hour of PM_{10}.
k. Dust Collector H-36 : 0.401 pounds per hour of particulate matter, and 0.401 pounds per hour of PM_{10}.
l. Dust Collector H-41 : 0.535 pounds per hour of particulate matter, and 0.535 pounds per hour of PM_{10}.
m. Dust Collector K-58 : 0.373 pounds per hour of particulate matter, and 0.373 pounds per hour of PM_{10}.

B. Air Pollution Control Equipment

1. Permittee shall operate the following air pollution control equipment to control particulate

matter emissions from the affected sources subject to this Section :

Other Currently Existing Dust Collectors : BL-DC1, BL-DC2, BL-DC3, BL-DC4, BL-DC5, BL-DC6, BL-DC7, BL-SB5-DC2, BL-SB5-DC3, C2-DC2, C2-DC3, C2-DC5, C2-DC6, C2-DC7, C2-DC8, C2-DC9, C2-DC10, C2-DC11, C2-DC12, C2-DC13, CM-MA-DC1, AC-DC1, AC-DC3, CM-DC4, CM-DC5, CM-DC8, CM-DC9, CM-DC10, CM-DC11, CM-DC12, CM-DC14, CM-DC15, CM-DC16, CM-DC17, D2-DC1, D2-DC3, D2-DC4, D4-DC1, D4-DC2, F2-PS-DC1, F2-PS-DC2, F2-PS-DC3, F3-KS-DC1, F2-DC1, F2-DC4, F3-DC1, F3-DC2, H4-K1-DC, H2-KB1-DC, H4-K2-DC, H4-K3-DC, H2-KB3-DC, H2-DC1, H2-DC2, H4-DC1, H5-5-DC1, H5-5-DC2, H5-DC1, PH-DC1, PH-DC2, PH-DC3, PH-DC4, PH-DC5, AC-BE2-DC, CM-DC14, CM-DC15, CM-DC16, H2-BE2-DC

Currently Existing Product Collectors : CM7-DC2, D3-1-DC2, D2-PC, CM7-DC3

RIMOD 3 Phase II Dust Collectors : L-04, G-04, G-21, H-36, H-41, K-58

Paragraph VIII(B)(1) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

2. At all times, including periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment, subject to this Section, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))((i))]

C. Monitoring, Reporting, Recordkeeping

1. For affected sources subject to this Section Permittee shall monitor opacity in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(j)]

2. Permittee shall comply with the SSM Plan and Monitoring, Reporting, and Recordkeeping requirements in Part I(L) and Part I(M) of this Attachment.

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.1353, 40 CFR §63.1354, 40 CFR §63.1355]

D. Testing

1. Before December 6, 2002, Permittee shall demonstrate initial compliance with the emission standards in Part VIII(A)(1) of this Attachment for the affected sources subject to this Section by conducting tests in accordance with EPA Reference Method 9 of 40

CFR Part 60, Appendix A. The performance tests shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The maximum six-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the EPA Reference Method 9 performance test shall be three hours (30 6-minute averages), except that the duration of the EPA Reference Method 9 performance test may be reduced to one-hour if the following conditions apply :

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.7(a)(2)(iii), 40 CFR §63.1349(b)(2)]

a. There are no individual readings greater than 10 percent opacity; and
b. There are no more than three readings of 10 percent for the first one hour period.

2. Once during the term of this permit, Permittee shall conduct performance tests in accordance with EPA Reference Method 5 of 40 CFR Part 60, Subpart A on Dust Collectors C2-DC3, D4-DC2, D4-DC1, F2-DC4, AC-DC1, CM-DC17, D2-DC4, L-04, G-04, G-21, H-36, H-41, K-58.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

E. Methods of Determining Compliance

1. The Director shall determine compliance with Paragraph VIII(A)(1) of this Attachment based on the results of tests performed in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(h)(2)(i)]

2. Operation and maintenance requirements in this Section are enforceable independent of emissions limitations. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L)), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii), 40 CFR §63.6(e)((2))]

3. The Director shall determine compliance with Paragraph VIII(A)(2) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

F. Permit Shield

Compliance with this Section shall be deemed compliance with 40 CFR §63.1348, 40 CFR

§63.1349(b)(2), 40 CFR §63.1350(j), 40 CFR §63.1353, 40 CFR §63.1354, §63.1355, and Permit 1000547 Condition II(A), for the affected sources subject to this Section.

[AAC R18-2-325]

IX. FUEL BURNING EQUIPMENT

This Section is applicable to the process sources identified in Column 8 of Attachment D.

A. Emission Limits/Standards

1. Permittee shall not cause, allow, or permit the emission of particulate matter, caused by combustion of fuel, from any fuel burning operation subject to this Section, in excess of the amounts calculated by one of the following equations :

[AAC R18-2-724(C)]

a. For equipment having a heat input rate of 4200 million BTU per hour or less, the maximum allowable emissions shall be determined by the following equation :

$E = 1.02\ Q^{0.769}$, where

E = the maximum allowable particulate emission in pounds-mass per hour,
Q = the heat input rate in million BTU per hour

b. For equipment having a heat input rate greater than 4200 million BTU per hour, the maximum allowable emissions shall be determined by the following equation :

$E = 17.0\ Q^{0.432}$, where E and Q have the same meaning as in Sub-Paragraph IX(A)(1)(a).

2. Permittee shall not cause the emission of any plume from process sources subject to this Section, whose opacity is greater than 15 percent, as determined by EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-724(J)]

B. Permit Shield

Compliance with this Section shall be deemed compliance with AAC R18-2-724(C) and AAC R18-2-724(J) for the process sources subject to this Section.

[AAC R18-2-325]

X. SECONDARY MATERIALS UTILIZATION PROCEDURES AND FUELS - TYPES, AMOUNTS, ANALYSIS

A. Permittee shall only burn the following fuels in Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill:
[Permit 1000547, Condition VII]

Fuel Type	Maximum Fuel Proportion [1, 2]	
	Kilns 1, 2, 3	Kiln 4
Coal	100	100
Coke	40	12
Natural Gas	100	100
Diesel	100	100
No. 2 Fuel Oil	100	100
Bunker C Oil	100	100
Chopped Tires (< 6" x 6")	0	34
On-Specification Used Oil Fuel	0	41
Wood Chips	0	22
Activated Carbon	0	5
Jet Fuel	0	5

Notes - 1 : Maximum Fuel Proportion is defined as the maximum percent of the actual heat input provided by a fuel component in a fuel mixture.

2 : The total sulfur content of any fuel mix, calculated using the most recent and definitive fuel analysis test data (see Part X(C)) shall not exceed 1.25 pounds per million BTU.

B. This permit does not authorize the use of any other fuels (i.e., any fuels other than those listed in Part X(A)), including, but not limited to, off-specification used oil fuel, hazardous waste or hazardous waste fuel without prior approval by ADEQ.
[Permit 1000547, Condition VII]

C. This Section is not based on a federal applicable requirement and is therefore not federally enforceable. Unless otherwise specified, all sample collection, sample preparation, and analyses performed or caused to be performed by Permittee shall be conducted according to the current ASTM Standards or EPA Testing Methods. Except for on-specification used oil fuel, analyses performed by the fuel supplier shall be acceptable for the purposes of these requirements. For on-specification used oil fuel, the analyses shall be performed by Permittee or by a qualified laboratory operating under Permittee's contract.
[AAC R18-2-306(B)(2), Permit 1000547 Condition VII]

1. Fuel Analysis [AAC R18-2-311]

Permittee shall test or cause to be tested the following fuels for higher heating value, sulfur

content and HAPs (as defined in Clean Air Act §112(b)(1)). Permittee shall submit to ADEQ in writing, prior to testing for HAPs, a list of the specific HAPs (in addition to those specified below) for which the concentrations are to be determined. This list should be based on an estimate of the potential for the HAP being present in the individual fuel to be tested in sufficient quantity to lead to a significant air quality impact as defined by the appropriate AAAQG. Approval of the HAPs list for each fuel shall require ADEQ's written approval. The frequency of the tests shall be according to the following frequency :

a. The first fuel delivery of coal, coke, diesel fuel, No. 2 Fuel Oil or Bunker C Oil from each fuel supplier and/or mine location or oil refinery; and

b. Every month for shredded tires and every three months for wood chips; and

c. For the on-specification used oil fuel :

(1) the heating value and the sulfur content shall be calculated based on vendor testing;

(2) each tanker or truck shipment of on-specification used oil fuel received by Permittee shall be field tested for total halogens, measured as chlorides, at a minimum, before it is unloaded into an on-site storage tank; the screening method used shall be Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-486, 3rd Edition, Method 9077 or a comparable method approved by ADEQ in writing prior to its use; those shipments that do not meet the appropriate used oil fuel specifications listed in ARS § 49-801(B) shall be rejected;

(3) The following HAPs concentrations shall be measured for each on-site tank of fuel before it is used : Arsenic, Cadmium, Chromium, Lead, Polychlorinated biphenyls (PCBs) and total halogens; those tanks that do not meet the appropriate used oil fuel specifications listed in ARS § 49-801(A)(5) and § 49-801(B) shall not be fired in any kiln; and

d. For activated carbon :

(1) The heating value shall be assumed to be 7000 BTU/lb. After issuance of this permit, Permittee shall test the first two shipments of activated carbon for the sulfur content. Based on these tests, ADEQ shall establish a baseline value to be used in future calculations.

(2) Permittee shall be responsible to obtain an analysis of each shipment of activated charcoal to determine the concentration of all potentially hazardous substances as listed in the Arizona Ambient Air Quality Guidelines (AAAQG). Permittee shall then model the dispersion of those substances identified using an EPA approval model (e.g., SCREEN 3, MODEL) to determine the potential impact.

If the result of the dispersion model indicate a potential exceedance of an AAAQG value, the material shall not be used, and ADEQ shall be notified of the results. In any case, Permittee shall retain the fuel analysis and modeling results for five (5) years and make available to authorized ADEQ personnel.

2. From this data the sulfur content of the as-fired fuel shall be calculated to assure that the maximum fuel sulfur content does not exceed 1.25 pounds per million BTU. The results of these tests and calculations shall be retained for at least five (5) years following the date of measurement.

   Since procedures for representative sample collection and preparations are not fully defined for shredded tires, Permittee shall develop a protocol for such and submit this protocol, in writing, to ADEQ for review and approval. This protocol must be approved by ADEQ prior to commencing the burning of shredded tires on a continuing basis.

3. Secondary Materials (Raw Feed Materials) Utilization Procedures

   Permittee shall keep complete records of secondary materials used as ingredients or raw materials in its facility and shall evaluate such secondary materials as follows :

   a. Pre-acceptance Procedures : Permittee shall require a completed and signed Alternate Raw Material Recycling Questionnaire with analyses and a representative sample of the secondary material from the generator. Permittee shall re-analyze the sample for any analyses not performed by the generator, and evaluate the secondary material to determine whether the physical characteristics sufficiently compare with the generator description and the MSDS supplied by the generator and to determine, based upon the information supplied by the generator or developed independently by Permittee, if the secondary material is regulated as a hazardous waste under the Resource Conservation and Recovery Act and the Arizona Hazardous Waste Management Act (hereinafter collectively "RCRA"). If the secondary material is determined to be a hazardous waste regulated under RCRA, Permittee shall not use the secondary material.

   b. Acceptance Procedures : Before secondary materials can be accepted at the facility, the secondary material must be weighed unless accompanied by a certified weighmaster's ticket; the ticket must have the generator's name and an accurate material description. During unloading, the secondary material will be compared to the MSDS and the Recycling Questionnaire and unloading will be suspended until any inaccuracies have been resolved. Permittee will also obtain a representative sample of the secondary material being unloaded.

   c. Record-Keeping : All records concerning Permittee's evaluation of secondary materials shall be maintained at the facility and available for review by ADEQ.

d. Secondary materials : For purposes of Paragraph X(C)(3), "secondary materials" are materials generated by a party other than Permittee that are to be reprocessed or reused and which are rich in oxides of calcium, alumina, iron, or silica. This definition does not include earthen ores mined exclusively for their oxide content where no extraction or beneficiation other than mining, crushing, screening, physical separation, or washing with water have occurred.

XI. AMBIENT MONITORING

This Section is not based on a federal applicable requirement and is therefore not federally enforceable. Permittee shall operate and maintain the ambient PM_{10} particulate samplers presently operating at the existing Rillito Northwest (NW) monitoring site and the meteorological sensors presently operating at the existing Rillito Southeast (SE) monitoring site. This PM_{10} State and Local Air Monitoring Station (SLAMS) - equivalent network shall comply with the following requirements :

[AAC R18-2-306(B)(2), 40 CFR 58, Appendices, Permit 1000547 Condition X]

A. General Requirements

1. Samplers : Wedding Critical Flow High Volume PM_{10} Sampler or equivalent.

2. Sample Size to be measured : 0 to 10 microns

B. Laboratory Sample Analyses

Each sample shall be weighed, the 24-hour sample period concentration calculated and reported in standard $\mu g / m^3$. The laboratory mass measurements and subsequent data reporting shall be done in accordance with appropriate manufacturer's instruction manuals and in accordance with the specifications contained in the latest revision of Section 2.11 of the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, U.S. Environmental Protection Agency.

C. PM_{10} Sampler Operations

All PM_{10} samplers shall be operated, calibrated and maintained in accordance with the appropriate manufacturer's instruction manuals and in accordance with the latest revision of Section 2.11 of the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, U.S. Environmental Protection Agency. The samplers shall be sited, maintained, and operated in accordance with the requirements of 40 CFR Part 50, Appendix J; 40 CFR Part 58, Appendix A, Sections 3.3, 3.4.1, 5.3, and 5.4; and 40 CFR Part 58, Appendix E, Section 8. Permittee shall operate a second, collocated PM_{10} sampler of the same brand and model at the Rillito NW site to provide precision data for Permittee's sampling network.

D. Reports

Quarterly reports listing individual data points and summarizing the data collected pursuant to this section shall be submitted before the 45th day of the following quarter. An annual report summarizing the quality assurance data as required by 40 CFR Part 59, Appendix A, Sections 3.3, 3.4.1, 5.3, and 5.4 shall be submitted before the 60th day of the quarter following the fourth quarter of the calendar year. **Two(2) copies of the quarterly and annual reports shall be mailed, one to the Air Assessment Section and the other to the Compliance Section of the Air Quality Division.** If desired, by subsequent letter agreement, Permittee may submit data records to the Air Assessment Section in electronic format, with a summary hard copy report attached.

The report shall contain the following information specified by site. All concentrations shall be presented in micrograms per cubic meter :

1. Date of each measurement.

2. PM_{10} concentration for each measurement.

3. Average PM_{10} concentration for the quarter.

4. Maximum PM_{10} concentration for the quarter.

E. PM_{10} Site and Sampling Frequency

The PM_{10} samplers shall be operated at the Rillito NW site (8820 West Water Street). Samples shall be collected on every-sixth-day, midnight to midnight sampling schedule. This schedule shall be offset by three days from the national every-sixth-day sampling schedule. The attainment status of the Rillito PM_{10} Planning Area will also be monitored by ADEQ at the Rillito NW site on the national every-sixth-day schedule. The monitoring schedule specified for Permittee will be reviewed and may be subject to change as the attainment status of the Rillito Planning Area progresses.

In the event that a sampler malfunction or other circumstances beyond Permittee's control prevents the successful collection of the required samples on the schedule specified above, special midnight to midnight samples shall be substituted starting as soon as practicable after the correction of the malfunction problem to comply with the data recovery specifications listed in CFR documents. Sampling, as may be required by ADEQ, during a facility upset or failure of air pollution control equipment shall supersede the every-sixth-day schedule specified above.

F. Meteorological Monitoring

Permittee shall operate, calibrate, and maintain wind direction and wind speed sensors complying with the equipment, siting, quality assurance, and data reduction specifications found in the latest revisions of the U.S. Environmental Protection Agency documents entitled Quality

Assurance Handbook for Air Pollution Measurement Systems, Volume IV, and On-Site Meteorological Program Guidance for Regulatory Modeling Applications. These sensors shall be operated at the Rillito SE site (0.7 miles southeast of Rillito, at APCC Well Site #4).

G. Data from the samplers and sensors shall be retained by Permittee for at least five years after the date of generation.

ATTACHMENT "C": SPECIFIC PROVISIONS

Air Quality Control Permit No. M190310P1-00
for
ARIZONA PORTLAND CEMENT COMPANY - RILLITO CEMENT PLANT

{Reading Note: In this Attachment there are many instances where requirements in different parts of the permit have to be cross-referenced. To streamline the cross-referencing procedure, and to reduce ambiguity, the following naming convention has been adopted - Level 1 : Section ; Level 2: Part; Level 3:Paragraph; Level 4:Sub-Paragraph; Level 5: Condition; Level 6: Term. For example, requirements for the Pyroprocessing System are in Section V. The requirements for the Kilns are in Part V(A). The Emission Standards for the Kilns are in Paragraph V(A)(1). The temperature limits for the Kilns are in Sub-Paragraph V(A)(1)(d). When a fifth level appears, it is referred to as a "Condition", a sixth level is referred to as a "Term".}

I. General Requirements

A. Permittee shall comply with this Attachment if the plant is not a major source of hazardous air pollutants (HAP) as defined in AAC R18-2-101(64)(b)(i). Permittee shall comply with Attachment B if it is a major source of HAP.

[AAC R18-2-1101(B)(46),40 CFR §63.1340]

B. The conditions of this permit shall apply to equipment identified in Attachment D. In the event that after the date of permit issuance, Permittee identifies equipment existing at the plant at the time of permit issuance, but not included in the permit application for this permit, Permittee shall promptly apply for a permit revision to include such equipment in the permit.

[AAC R18-2-304(G)]

C. Within 30 days of issuance of this permit the owner or operator shall have on site or on call a person that is certified in EPA Reference Method 9.

[AAC R18-2-306(A)(3)(c)]

D. Permittee shall not cause or permit the airborne diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions became airborne.

[Pima County Applicable SIP, Rule 343]

1. In actual practice, the airborne diffusion of visible emissions across property lines shall be prevented by appropriately controlling the emissions at the point of discharge, or ceasing entirely the activity or operation which is causing or contributing to the emissions.

2. Part I(D) of this Attachment shall not apply when the naturally induced wind speed exceeds 25 miles per hour as estimated by a certified visible emission evaluator using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by a U.S. Weather Bureau Section or a U.S. Government military installation.

3. The exception in Paragraph I(D)(2) of this Attachment shall not apply to the demolition, destruction, transport, or pulverization of structures containing friable asbestos materials, and all dust producing activities associated with such sources shall be halted when the wind

is causing or contributing visible emissions to cross beyond the property lines within which the emissions discharge.

4. Any disregard of, neglect of, or inattention to other controls required herein, during any time when Part I(D) of this Attachment is in effect, shall automatically waive the exception in Paragraph I(D)(2) of this Attachment, and such relaxation of controls shall be a violation.

E. For the purposes of this permit, Visible Emissions Observation Procedure shall refer to the following methodology :

1. Within 30 days of issuance of this permit, Permittee shall submit a visual observation plan to be approved by the Department. The observation plan shall identify a central lookout station or multiple observation points, as appropriate, from where non-point sources, and where applicable, fugitive emissions, shall be monitored. When multiple observation points are used, all the non- point sources, and where applicable, fugitive emissions, associated with each observation point shall be specifically identified within the observation plan.

2. A certified EPA Reference Method 9 observer shall conduct a visual survey of visible emissions from non-point sources, and where applicable, fugitive emissions, in accordance with the observation plan, under normal representative operating conditions. The survey shall be conducted at the frequency specified in the permit condition that refers to this procedure. Permittee shall keep a record of the name of the observer, the date and time on which the observation was made, the location(s) of the observation, and the results of the observation.

3. If the observer sees a plume from a non-point source or a fugitive emissions source that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall, if practicable, take a six-minute EPA Reference Method 9 observation of the plume.

4. If the six-minute opacity of the plume is less than the applicable opacity standard, the observer shall make a record of the following:

   a. Location, date, and time of the observation;
   b. The results of the EPA Reference Method 9 observation; and
   c. The name of the observer.

5. If the six-minute opacity of the plume exceeds the applicable opacity standard, then Permittee shall do the following:

   a. Adjust or repair the controls or equipment to reduce opacity to below the applicable opacity standard;
   b. Report as an excess emission in accordance with Section XII of Attachment “A” of this permit; and

c. Conduct a six-minute EPA Reference Method 9 observation reading within 48 hours after taking corrective action. The results of this observation including date, time, name of the observer, and location shall be recorded.

6. Any changes to the observation plan, originally approved by the Department, shall be made only with the prior approval of the Director.

F. For the purposes of this Attachment, the following definitions shall be used :

1. "Affected facility" means any apparatus to which a standard is applicable. This definition is from 40 CFR § 60.2. In this permit, "affected facility" is used to refer to equipment subject to the New Source Performance Standards in 40 CFR Part 60.

2. "Affected source" means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to Section 112 of the Clean Air Act. "Stationary source" for the purposes of this definition shall mean any building, structure, facility, or installation which emits or may emit any air pollutant. The definitions in the first two sentences are from 40 CFR § 63.2. In this permit, "affected source" is used to refer to equipment subject to the National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63.

3. "Drop Points" shall refer to material transfer on to, off of, or between, any combination of air slides, bucket elevators, conveyor belts, cement truck or railcar loading, cement truck or railcar unloading, crushers, dust collectors, feeders, grizzlies, haul truck loading or unloading, hoppers, mills, stackers, screens, screw conveyors, storage bins, storage piles, storage silos, and any other material handling equipment.

4. "Malfunction" means:

a. Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. This definition of "Malfunction" is from 40 CFR § 63.2, and is applicable only to permit conditions that are derived from 40 CFR Part 63.

b. Any sudden and unavoidable failure of air pollution control equipment, process equipment or a process to operate in a normal and ususal manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care. This definition of "Malfunction" is from AAC R18-2-101(65), and is applicable only to permit conditions that are derived from the Arizona Administrative Code.

5. "Material permit condition" shall have the meaning provided in AAC R18-2-331.

6. "Process source" means the last operation or process which produces an air contaminant resulting from either :

   a. The separation of the air contaminants from the process material, or
   b. The conversion of constituents of the process materials into air contaminants which is not an air pollution abatement operation.

   This definition is from AAC R18-2-701(22). In this permit "process source" is used to refer to equipment subject to the Arizona State Implementation Plan, and Article 7 of the Arizona Administrative Code.

7. "Process weight" means the total weight of all materials introduced into a process source, including fuels, where these contribute to pollution generated by the process.
   [AAC R18-2-701(23)]

8. "Process weight rate" shall be determined as follows :
   [AAC R18-2-702(E)]

   a. For continuous or long run, steady-state process sources, the process weight rate shall be the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

   b. For cyclical or batch process sources, the process weight rate shall be the total process weight for a period which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such period.

9. "Shutdown" means:

   a. The cessation of operation of an affected source for any purpose. This definition of "Shutdown" is from 40 CFR §63.2, and is applicable only to permit conditions that are derived from 40 CFR Part 63.

   b. The cessation of operation of any air pollution control equipment or process equipment for any purpose, except routine phasing out of process equipment. This definition of "Shutdown" is from AAC R18-2-101(103), and is applicable only to permit conditions that are derived from the Arizona Administrative Code.

10. "Startup" means :

    a. The setting in operation of an affected source for any purpose. This definition of "Startup" is from 40 CFR §63.2, and is applicable only to permit conditions that are

derived from 40 CFR Part 63.

b. The setting into operation of any air pollution control equipment or process equipment for any purpose except routine phasing in of process equipment. This definition of "Startup" is from AAC R18-2-101(108), and is applicable only to permit conditions that are derived from the Arizona Administrative Code.

G. Permittee shall comply with the Operations and Maintenance Plan (OMP) submitted with the application for this permit, for each affected source. The OMP shall include the following :
[AAC R18-2-1101(B)(46), 40 CFR §63.1350(a), AAC R18-2-306(A)(3)(c)]

1. Procedures for proper operation and maintenance of the affected sources, affected facilities, process sources, and air pollution control devices in order to meet the emission limits and operating limits of Sections III, IV, V, and VI of this Attachment.

2. Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln/raw mill located at the facility each year; and

3. Procedures to be used to periodically monitor affected facilities and process sources subject to opacity standards under Section III, IV, V(B), and VI. Such procedures must include the following provisions :

a. Permittee shall conduct a monthly 1-minute visible emission test of each affected source in accordance with EPA Reference Method 22 of Appendix A to 40 CFR Part 60. The test must be conducted while the affected source is in operation.

b. If no visible emissions are observed in six consecutive monthly tests for any affected source, Permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

c. If no visible emissions are observed during the semi-annual test for any affected source, Permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, Permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

d. If visible emissions are observed during any EPA Reference Method 22 test, Permittee shall conduct a 6-minute test of opacity in accordance with EPA Reference Method 9 of Appendix A to 40 CFR Part 60. The EPA Reference Method 9 test shall begin within one hour of any observation of visible emissions.

H. For affected sources, failure to comply with the OMP developed in accordance with Part I(G)

of this Attachment shall be a violation of the standard.

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(b)]

I. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in Part I(L) of this Attachment.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(ii)]

J. Operation and maintenance requirements established pursuant to Section 112 of the Act are enforceable independent of emissions limitations.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii)]

K. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L) of this Attachment), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((2))]

L. Startup, Shutdown, and Malfunction Plan (SSM Plan) for Affected Sources

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.10(d)(5), 40 CFR §63.1354(b)(4), 40 CFR §63.1354(b)(5)]

This Part is applicable to all affected sources and associated air pollution control equipment subject to this permit.

1. Permittee shall implement a startup, shutdown, and malfunction plan (SSM Plan) that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The SSM Plan, developed in accordance with 40 CFR §63.6(e)((3)), is incorporated by reference into this permit.

2. To satisfy the requirement to develop a SSM Plan, Permittee may use the affected source's standard operating procedures manual, or an Occupational Safety and Health Administration or other plan, provided the alternative plans meet all the requirements of 40 CFR §63.6(e)((3)) and are made available for inspection when requested by the Director.

3. Based on the results of a determination made under Part I(K) of this Attachment, the Director may require that Permittee make changes to the SSM Plan. The Director may require reasonable revisions to a SSM Plan, if the Director finds that the plan :

   a. Does not address a startup, shutdown, or malfunction event that has occurred;
   b. Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to

the levels required by all relevant standards; or

c. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

4. If the SSM Plan fails to address an event that meets the characteristics of a malfunction but was not included in the SSM Plan at the time Permittee developed the SSM Plan, Permittee shall revise the SSM Plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective actions for similar malfunctions of process or air pollution control equipment.

5. Permittee shall keep the written SSM Plan on record after it is developed to be made available for inspection, upon request, by the Director for the life of the affected source or until the affected source is no longer subject to the provisions of 40 CFR Part 63. In addition, if the SSM Plan is revised, Permittee shall keep previous (i.e., superseded) versions of the SSM Plan on record, to be made available for inspection, upon request, by the Director, for a period of 5 years after each revision to the plan.

6. During periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment in accordance with the procedures specified in the SSM Plan.

7. When actions taken by Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures in the affected source's SSM Plan, Permittee shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist", or other effective form of recordkeeping, that confirms conformance with the SSM Plan for the event. In addition, Permittee shall keep records of these events as specified in Paragraph I(L)(9), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual startup, shutdown, and malfunction report required in Sub-Paragraph I(L)(10)(a).

8. If an action taken by Permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's SSM Plan, Permittee shall record the actions for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event in accordance with Sub-Paragraph I(L)(10)(b).

9. Permittee shall maintain records of the following :

a. The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);
b. The occurrence and duration of each malfunction of the air pollution control equipment;
c. All maintenance performed on the air pollution control equipment;
d. Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the SSM Plan;
e. All information necessary to demonstrate conformance with the SSM Plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in the SSM Plan. (The information needed to demonstrate conformance with the SSM Plan may be recorded using a "checklist", or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events).

10. Permittee shall submit the following reports :

a. If actions taken by Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSM Plan, Permittee shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Director semiannually. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half.

b. If actions taken by Permittee during a startup, shutdown, and malfunction (including actions taken to correct a malfunction) is not consistent with the procedure specified in the SSM Plan, Permittee shall report the actions taken for the event within 2 working days after commencing actions inconsistent with the SSM Plan followed by a letter within 7 working days after the end of the event. The immediate report required under this Sub-Paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Director within 2 working days after commencing actions inconsistent with the SSM Plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the SSM Plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

M. Notification, Reporting, Recordkeeping for Affected Sources

1. Notification Requirements

[AAC R18-2-1101(B)(46), 40 CFR §63.1353]

a. Permittee shall comply with the notification requirements of 40 CFR 63, Subpart A for all affected sources subject to this permit.

b. Permittee shall comply with the notification requirements in 40 CFR §63.9 as follows :

(1) Initial notifications as required by 40 CF 63.9(b) through (d). A Title V or 40 CFR Part 70 permit may be used in lieu of the initial notification required under 40 CFR §63.9(b), provided the same information is contained in the permit application as required by 40 CFR §63.9(b). Permit applications shall be submitted by the same due dates as those specified for the initial notification.

(2) Notification of performance tests as required by 40 CFR §63.7 and 40 CFR §63.9(e).

(3) Notification of opacity and visible emission observations required by 40 CFR §63.1349 in accordance with 40 CFR § 63.6(h)(5) and 40 CFR §63.9(h).

(4) Notification as required by 40 CFR §63.9(g), of the date that the continuous emission monitor performance evaluation required by 40 CFR §63.8(e) is scheduled to begin.

(5) Notification of compliance status as required by 40 CFR §63.9(h).

2. Reporting Requirements

[AAC R18-2-1101(B)(46), 40 CFR §63.1354]

a. Permittee shall comply with the reporting requirements of 40 CFR Part 63, Subpart A for all affected sources subject to this permit.

b. Permittee shall comply with the reporting requirements specified in 40 CFR §63.10 of the 40 CFR Part 63, Subpart A, as follows :

(1) As required by 40 CFR §63.10(d)(2), Permittee shall report the results of performance tests as part of the notification of compliance status.

(2) As required by 40 CFR §63.10(d)(3), Permittee shall report the opacity results from tests required by 40 CFR 63.1349.

(3) As required by 40 CFR §63.10(e)(2), Permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring systems required by 40 CFR §63.8(e). Permittee shall submit the report simultaneously with the results of the performance test.

(4) As required by 40 CFR §63.10(e)(2), Permittee shall report the results of the continuous opacity monitoring system performance evaluation conducted under 40 CFR §63.8(e).

(5) As required by 40 CFR §63.10(e)(3), Permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.

(6) Permittee shall submit a summary report semiannually which contains the information specified in 40 CFR §63.10(e)(3)(iv). In addition, the summary report shall include :

(a) All exceedances of maximum control device inlet gas temperature limits specified in Sub-Paragraphs V(A)(1)(d) and V(A)(1)(e) of this Attachment.

(b) All failures to calibrate thermocouples and other temperature sensors as required under Sub-Paragraph V(A)(4)(d) of this Attachment.

(c) The results of any combustion system component inspections conducted within the reporting period as required under Sub-Paragraph V(A)(4)(f) of this Attachment.

(d) All failures to comply with any provision of the OMP developed in accordance with Part I(G) of this Attachment.

(7) If the total continuous monitoring system downtime for any continuous emission monitor or any continuous monitoring system for the reporting period is ten percent or greater of the total operating time for the reporting period, Permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report.

3. Recordkeeping Requirements

[AAC R18-2-1101(B)(46), 40 CFR §63.1355]

a. Permittee shall maintain files of all information (including all reports and notifications) in a form suitable and readily available for inspection and review as required by 40 CFR §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record.

At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

b. Permittee shall maintain records for each affected source as required by 40 CFR §63.10(b)(2) and 40 CFR §63.10(b)(3); and

(1) All documentation supporting initial notifications and notifications of compliance status under 40 CFR §63.9

(2) All records of applicability determination, including supporting analyses.

c. In addition to the recordkeeping requirements in Sub-Paragraph I(M)(3)(b), Permittee shall maintain all records required by 40 CFR §63.10(c) for the continuous monitoring systems.

N. Production Limits

1. Upon completion of Phase II of RIMOD III, the quarry production shall be limited to a combined total of 8,000,000 tons per year (twelve month total calculated at the end of each month) of waste rock and kiln grade stone. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition III(A)]

2. Upon completion of Phase II of RIMOD III, the total clinker production shall be limited to 2.3 million tons per year (twelve month total calculated at the end of each month). This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition III(B)]

3. Upon completion of Phase II of RIMOD III, the blasting at the quarry shall not exceed 268 blasts per year. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition III(C)]

O. At the time that the compliance certifications required by Section VII of Attachment A are submitted, Permittee shall submit reports of all monitoring activities required by this permit, performed in the same six month period as applies to the compliance certification period. [AAC R18-2-306.01(C)(1)(a)]

II. OPEN AREAS, ROADWAYS/STREETS, MATERIAL HANDLING, STORAGE PILES

A. Emission Limits/Standards

1. Permittee shall not cause, allow or permit visible emissions from open areas, roadways and

streets, storage piles or material handling in excess of 40 % opacity measured in accordance with the Arizona Testing Manual, EPA Reference Method 9.

[AAC R18-2-612]

2. Permittee shall employ at least one of the following reasonable precautions, or any other method as proposed by Permittee and approved by the Director (following compliance with any applicable air permit revision mechanism), to prevent excessive amounts of particulate matter from becoming airborne:

   a. Use dust suppressants or soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, or barring access when constructing, using, altering, repairing, demolishing, clearing, or leveling a building or its appurtenances, a driveway, a parking area, or a vacant lot, or when moving or excavating earth.

      In addition to the above, the following have been identified as reasonable precautions:

      Applying wetting agents, stemming, optimizing blast pattern, controlling oxygen balance of explosives during blast operations, minimize material drop height, temporary paving, road cover, controlling vehicle access, limiting vehicle speed, revegetation, hydro-seeding, hydro-mulching, mulching, wet sweeping, vacuuming, wind fence, wind break, shrouding, skirting, enclosing, contouring, animals, soil adhesives, compaction, agglomeration, inherent moisture content, dust collectors, and encrustation.

      [AAC R18-2-604(A)]

   b. Apply temporary paving, dust suppressants, wetting down, or detouring when using, repairing, constructing or reconstructing a roadway.

      In addition to the above, the following have been identified as reasonable precautions:

      Applying wetting agents, controlling vehicle access, limiting vehicle speed, revegetation, hydro-seeding, hydro-mulching, mulching, landscaping, wet sweeping, vacuuming, wind fence, wind break, covering, contouring, usage of soil adhesives, usage of soil stabilizers, compaction, usage of decomposed granite, agglomeration, inherent moisture content, dust collectors, and encrustation.

      [AAC R18-2-605(A)]

   c. Apply dust suppressants, wetting, or cover the load when transporting materials likely to give rise to airborne dust.

      In addition to the above, the following have been identified as reasonable precautions:

      Applying wetting agents, minimizing material drop height, limiting vehicle speed, wind break, covering, agglomeration, inherent moisture content, dust collectors, and encrustation.

      [AAC R18-2-605(B)]

d. Use spray bars, wetting, wetting agents, dust suppressants, covers, or hoods when crushing, screening, handling, transporting, or conveying material that is likely to result in significant amounts of airborne dust.

In addition to the above, the following have been identified as reasonable precautions:

Minimizing material drop height, wind fence, wind break, shrouding, skirting, enclosing, contouring, inherent moisture content, dust collectors, and agglomeration.

[AAC R18-2-606]

e. Use chemical stabilization, wetting, or covering when stacking, piling or otherwise storing organic or inorganic dust-producing material.

In addition to the above, the following have been identified as reasonable precautions:

Wind fence, wind break, shrouding, skirting, enclosing, covering, contouring, agglomeration, inherent moisture content, dust collectors, and encrustation.

[AAC R18-2-607(A)]

f. Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents.

In addition to the above, the following have been identified as reasonable precautions:

Wetting, wind fence, wind break, shrouding, skirting, enclosing, covering, contouring, inherent moisture content, and agglomeration.

[AAC R18-2-607(B)]

g. Use wetting agents or dust suppressants before the cleaning of any site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

In addition to the above, the following have been identified as reasonable precautions:

Wetting, chip seal, gravel, temporary paving, controlling vehicle access, limiting vehicle speed, revegetation, inherent moisture content, and hydro-seeding.

[AAC R18-2-804(B)]

3. Permittee shall implement the following dust control procedures :

[Permit 1000547 Condition II(A)]

a. Dust Control Procedures for Plant Unpaved Roads

(1) The maximum speed shall be restricted to 15 miles per hour;
(2) The roadways shall be watered frequently enough to assure compliance;
(3) Berms shall be installed around the areas which are not used by traffic to restrict usage;
(4) Spilled materials shall be removed within eight hours of occurrence. This material shall be collected either manually or by using a vacuum equipped truck.

b. Dust Control Procedures for Paved Plant Roadways

(1) The maximum speed shall be restricted to 20 miles per hour;
(2) The paved roadways shall be swept weekly or more frequently, as necessary, to assure compliance.

c. Dust Control Procedures for Material Accumulation Throughout the Plant and Quarry Operational Area

(1) This Condition applies to, but is not limited to, areas below the conveyor systems, transfer points and process and conveyance equipment;
(2) This material shall be collected either manually or by using a vacuum equipped truck. Clean-up shall be performed on an as-needed basis. If the results of the self-imposed clean-up plan/schedule used by Permittee at any time does not meet with the Director's approval, upon receipt of such notification, Permittee shall submit a written clean-up plan/schedule for remedial actions to the Director for approval within 15 days of notice. Following approval, the revised clean-up plan/schedule shall be implemented as soon as practicable.

d. Road Wetting/Stabilizing Procedure

(1) Soil stabilizers shall be used as described in Paragraph II(A)(4) of this Attachment. To the extent that water is used as a wetting agent on a regular basis, to determine the water application intensity, Permittee shall apply the following equation :

$L = (0.8\ p * d * t) / (100 - C)$ where :

C = average control efficiency (%)
p = potential average hourly daytime evaporation rate (millimeters/hour)
d = average hourly daytime traffic (per hour)
t = time between applications (hours)
L = application intensity (liters/square meter)

(2) Plant and Quarry roads shall be watered on all operating days except when roads are damp due to normal precipitation.

4. Permittee shall implement the following dust control plans :

a. Phase I Dust Control Plan - Permittee shall develop and submit a dust control plan to ADEQ for approval, to achieve a 65% control efficiency from all unpaved roads during Phase I.
b. Phase II Dust Control Plan - Permittee shall develop and submit a dust control plan to ADEQ for approval, to achieve an 80% control efficiency on the quarry roads and an 85% control efficiency from all other regularly used unpaved roads during Phase II.
c. The Phase I and Phase II Dust Control Plans shall provide for watering or the type of dust suppressant used if other than water, the amount and frequency of application and the recordkeeping necessary to demonstrate the required control efficiency and to verify compliance with the emission standards of AAC R18-2-605 through 607 and 612.
d. Permittee shall continue to implement the Phase I Dust Control Plan.
e. Commencing with the startup of the first Phase II change of RIMOD III, Permittee shall execute the Phase II Dust Control Plan.
f. The quarry road between Twin Peaks Road and the quarry entrance shall be paved and maintained in a paved condition.
g. Prior to startup of the first Phase II change of RIMOD III the quarry road between Twin Peaks Road and Avra Valley Road shall be paved and maintained in a paved condition.
h. Prior to startup of the first Phase II change, all paved roads at the quarry and the paved portions of the quarry shall be controlled by weekly sweeping or equivalent, as necessary to assure compliance with the approved dust control plan.
i. The plant road segments paved in 1995 and 1996 shall be maintained in a paved condition.

5. Permittee shall maintain the roadways paved in 1991 and 1992 in a paved condition. [Permit 1000547 Condition A]

B. Monitoring, Reporting, Recordkeeping

1. Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E), once every month to monitor emissions from all activities subject to this Section.

[AAC R18-2-306(A)(3)(c)]

2. Permittee shall maintain records of the dates on which any of the activities listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment were performed and control measures employed.

[AAC R18-2-306(A)(3)(c)]

3. In lieu of Paragraph II(B)(2), Permittee may maintain a Non-Point Source Monitoring Plan as a means of monitoring and recordkeeping for any of the activities listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment. The Non-Point Source Monitoring Plan shall be developed and maintained in compliance with the following conditions :

[AAC R18-2-306(A)(3)(c)]

a. If the Non-Point Source Monitoring Plan has not been submitted to the Director as part of the Class I application form, Permittee shall submit a significant revision pursuant to AAC R18-2-320 stating an intent to rely on a Non-Point Source Monitoring Plan. The Non-Point Source Monitoring Plan shall be submitted with the Significant Revision application.

b. The Non-Point Source Monitoring Plan shall describe the methods that Permittee will use to comply with the requirements of this Section. The plan shall contain the following minimum elements of information :

(1) Types of control measures employed on an activity-specific basis;
(2) Frequency of application of control measure; and
(3) A system for documenting variations from the strategy outlined in the Non-Point Source Monitoring Plan.

c. Permittee may add any of the methods already listed in Sub-Paragraphs II(A)(2)(a) through (g) to the list of control methods initially identified in the Non-Point Source Monitoring Plan. Such changes shall be recorded, and a notification shall be sent to the Director within 10 days following the change. In addition, Permittee may add any method approved by the Director following permit issuance pursuant to Paragraph II(A)(2), to the list of control methods identified in the Non-Point Source Monitoring Plan.

4. Permittee shall keep the following records readily available for inspection at the cement plant :

[AAC R18-2-306.01, AAC R18-2-306(A)(3)(c), Permit 1000547 Condition VIII(A)]

a. Records of watering and chemical dust suppressant applications on unpaved roads at the quarry and the cement plant, as required by the Phase I Dust Control Plan and the Phase II Dust Control Plan.
b. Maintenance activities conducted on the paved portions of the quarry road, and maintenance performed on the plant road segments which were paved in 1995 and 1996.
c. Records of sweeping activities or equivalent control application on the paved portions of the quarry road as required by the Phase II Dust Control Plan.
d. Monthly production of the quarry (waste rock and kiln grade stone), and annual production calculated for the previous 12-month period (after start-up of the first change of Phase II of RIMOD III).
e. Monthly count of the number of blasts, and annual count calculated for the previous 12-month period (after start-up of the first change of Phase II of RIMOD III).

C. Permit Shield

Compliance with this Section shall be deemed compliance with AAC R18-2-604(A), AAC

R18-2-605(A), AAC R18-2-605(B), AAC R18-2-606, AAC R18-2-607(A), AAC R18-2-607(B), AAC R18-2-804(B), AAC R18-2-612, and Permit 1000547 for the activities listed in this Part.

[AAC R18-2-325]

III. QUARRY

A. Equipment not subject to New Source Performance Standards

This Part is applicable to the following process sources : (i) equipment identified in Column 9 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. Permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any process source, in total quantities in excess of the amounts calculated by the equations set forth below :

(1) For process sources having a process weight rate 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation :

$E = 3.59\ P^{0.62}$, where :

E = the maximum allowable particulate emissions rate in pounds-mass per hour
P = the process weight rate in tons-mass per hour

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation :

$E = 17.31\ P^{0.16}$, where E and P are as defined in Condition III(A)(1)(a)((1)).

[AAC R9-3-522(A)(2) as approved into the Arizona SIP on September 28, 1982, 40 CFR § 52.126(b)(1)]

b. Permittee shall not cause, suffer, allow, or permit the opacity of any plume or effluent to be greater than 40 percent as measured by EPA Reference Method 9.

[AAC R18-2-702(B)]

2. Air Pollution Control Equipment

a. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the process sources subject to this Part :

Dust Collectors - B2-DC1, B3-DC1, B5-DC1, B5-DC2, B5-DC3, B7-DC1.

Paragraph III(A)(2) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. Permittee shall control fugitive emissions from process sources subject to this Part in accordance with the methods listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment.

[AAC R18-2-722(E)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall monitor stack emissions from the process sources subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

4. Testing

Permittee shall conduct performance tests once during the permit term on all process sources subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

The Director shall determine compliance with Sub-Paragraphs III(A)(1)(a) and III(A)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 9, respectively, of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R9-3-522(A)(2) as approved into the Arizona SIP on September 28, 1982, AAC R18-2-702(B), AAC R18-2-722(E), and 40 CFR §52.126(b)(1) for the process sources subject to this Part.

[AAC R18-2-325]

B. Equipment Subject to New Source Performance Standards

This Part is applicable to the following affected facilities : (i) equipment identified in Column 9 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

   a. On and after the date on which the performance test required by Paragraph III(B)(4) of this Attachment is completed, Permittee shall not cause to be discharged into the atmosphere from any affected facility any stack emissions which :

      (1) Contain particulate matter in excess of 0.05 grams/dry standard cubic meter; and
      (2) Exhibit greater than 7 percent opacity. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

      [AAC R18-2-901(66), 40 CFR § 60.672(a)]

   b. On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup as defined in 40 CFR §60.11, Permittee shall not cause to be discharged into the atmosphere from any affected facility any fugitive emissions which exhibit greater than 10 percent opacity. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

      [AAC R18-2-901(66), 40 CFR § 60.672(b)]

   c. Permittee shall emit no more than the following from Dust Collector C-07 : (i) 0.501 pounds per hour of particulate matter, and (ii) 0.501 pounds per hour of PM_{10}. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

      [AAC R18-2-306.01, Permit 1000547 Condition II(A)(6)]

2. Air Pollution Control Equipment

   a. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the affected facilities subject to this Part :

      Dust Collectors - B6-DC3 and C-07.

      Sub-Paragraph III(B)(2)(a) of this Attachment is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

      [AAC R18-2-306(A)(2)]

   b. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate all affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

   a. Permittee shall monitor stack emissions from the affected facilities subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.
   [AAC R18-2-306(A)(3)(c)]

   b. Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E) of this Attachment, once every month to monitor fugitive emissions from the affected facilities subject to this Section.
   [AAC R18-2-306(A)(3)(c)]

4. Testing

   Within 60 days after achieving the maximum production rate at which an affected facility will be operated, but not later than 180 days after initial startup of such facility, Permittee shall conduct the following performance tests :
   [AAC R18-2-901(1), AAC R18-2-901(66), 40 CFR §60.8(a), 40 CFR § 60.675(b), 40 CFR § 60.675(c)]

   a. Particulate emissions test on Dust Collector B6-DC3 and Dust Collector C-07 stacks, in accordance with EPA Reference Method 5.
   b. Opacity test on stacks and fugitive emissions in accordance with EPA Reference Method 9.

5. Methods of Determining Compliance

   a. The Director shall determine compliance with Sub-Paragraphs III(B)(1)(a) and III(B)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 9 of 40 CFR Part 60, Appendix A.
   [AAC R18-901(1), 40 CFR §60.11(b)]

   b. For the purposes of submitting compliance certifications or establishing whether Permittee has violated or is in violation of Sub-Paragraphs III(B)(1)(a) and III(B)(1)(b), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the affected facilities subject to this Part would have been in compliance with Sub-Paragraphs III(B)(1)(a) and III(B)(1)(b) if the appropriate performance or compliance test or procedure had been performed.
   [AAC R18-901(1), 40 CFR §60.11(g)]

   c. The Director shall determine compliance with Sub-Paragraph III(B)(1)(c) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques

not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §60.672(a) and 40 CFR §60.672(b), 40 CFR §60.675(b), 40 CFR §60.672(c), and Permit 1000547 Condition II(A) for the affected facilities subject to this Part.

[AAC R18-2-325]

IV. COAL MILL SYSTEM

A. Equipment not subject to New Source Performance Standards

This Part is applicable to the following process sources : (i) equipment identified in Column 9 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

Permittee shall not cause, suffer, allow, or permit the opacity of any plume or effluent to be greater than 40 percent as measured by EPA Reference Method 9.

[AAC R18-2-702(B)]

2. Air Pollution Control

Permittee shall control fugitive emissions from process sources subject to this Part in accordance with the methods listed in Sub-Paragraphs II(A)(2)(a) through (g) of this Attachment.

[AAC R18-2-716(E)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E), once every month to monitor emissions from the process sources subject to this Part.

[AAC R18-2-306(A)(3)(c)]

4. Testing

Permittee shall conduct performance tests once during the permit term on all process sources subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR 60, Subpart A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

The Director shall determine compliance with Paragraph IV(A)(1) based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R18-2-702(B) for the process sources subject to this Part.

[AAC R18-2-325]

B. Equipment subject to New Source Performance Standards

This Part is applicable to the following affected facilities : (i) equipment identified in Column 9 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. Permittee shall not cause to be discharged into the atmosphere any gases which exhibit opacity in excess of 20 percent from any of the affected facilities subject to this Part. This Part is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

[AAC R18-2-901(10), 40 CFR §60.252(c)]

b. Permittee shall comply with the following emission limits :

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

(1) Dust Collector S-07 : 1.11 pounds per hour of particulate matter, and 1.11 pounds per hour of $PM_{10.}$
(2) Dust Collector S-13 : 0.049 pounds per hour of particulate matter, and 0.049 pounds per hour of PM_{10}.

Sub-Paragraph IV(B)(1)(b) of this Attachment is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

2. Air Pollution Control Equipment

a. Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the affected facilities subject to this Part :

Dust Collectors : S-13, S-07.

Sub-Paragraph IV(B)(2)(a) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate all affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

a. Permittee shall monitor stack emissions from the affected facilities subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

b. Permittee shall conduct a Visible Emissions Observation Procedure, as defined in Part I(E) of this Attachment, once every month to monitor fugitive emissions from the affected facilities subject to this Section.

[AAC R18-2-306(A)(3)(c)]

4. Testing

a. Permittee shall conduct performance tests once during the permit term on all affected facilities subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR 60, Subpart A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

b. Once during the term of this permit, Permittee shall conduct performance tests in accordance with EPA Reference Method 5 of 40 CFR 60, Subpart A on Dust Collectors S-07 and S-13.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

a. The Director shall determine compliance with Sub-Paragraph IV(B)(1)(a) of this Attachment based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR 60, Appendix A.

[AAC R18-2-901(1), 40 CFR §60.11(b)]

b. For the purposes of submitting compliance certifications or establishing whether Permittee has violated or is in violation of Sub-Paragraph IV(B)(1)(a), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the affected facilities subject to this Part would have been in compliance with Sub-Paragraph IV(B)(1)(a) if the appropriate performance or compliance test or procedure had been performed.

[AAC R18-2-901(1), 40 CFR §60.11(g)]

c. The Director shall determine compliance with Sub-Paragraph IV(B)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR § 60.252(c) and Permit 1000547 Condition II(A) for the affected facilities subject to this Part.

[AAC R18-2-325]

V. PYROPROCESSING SYSTEM

A. Kilns 1, 2, 3, 4

The affected sources subject to this Part are : Each of Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill.

1. Emission Limits/Standards

a. Permittee shall not cause to be discharged onto the atmosphere from any kiln or in-line kiln/raw mill, any gases which :

(1) Contain particulate matter in excess of 0.15 kilogram/Megagram (0.30 pounds per ton) of feed (dry basis) to the kiln. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).
[AAC R18-2-1101(B)(46), 40 CFR §63.1343(b)(1), AAC R9-3-505(B)(1)(a) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR § 60.62(a)(1)]

(2) Exhibit opacity greater than 20 percent. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).
[AAC R18-2-1101(B)(46), 40 CFR §63.1343(b)(2), AAC R9-3-505(B)(1)(b) as approved into the

Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR §60.62(a)(2)]

(3) Contain dioxins/furans (D/F) in excess of :

[AAC R18-2-1101(B)(46), 40 CFR §63.1343(b)(3)]

(a) 0.2 nanograms per dry standard cubic meter (8.7×10^{-11} grains per dry standard cubic foot) (TEQ) corrected to seven percent oxygen; or

(b) 0.40 nanograms per dry standard cubic meter (1.7×10^{-10} grains per dry standard cubic foot) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204EC (400EF) or less.

Condition V(A)(1)(a)((3)) of this Attachment is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

(4) Contain an amount in excess of 6 pounds of sulfur oxides, calculated as sulfur dioxide, per ton cement kiln feed. This Condition is applicable only to Kilns 1, 2, and 3.

[AAC R18-2-705(D)]

(5) Permittee shall not cause to be discharged onto the atmosphere from Kiln 4 in-line kiln/raw mill, any gases which contain in excess of : (i) 41.774 pounds per hour of particulate matter, (ii) 41.774 pounds per hour of PM_{10}. This Condition applies only after Kiln 4 in-line kiln/raw mill commences operation in RIMOD 3 Phase II configuration. This Condition is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

b. Total emissions of carbon monoxide from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill shall not exceed 5069 tons per year (twelve month total calculated at the end of each month). This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547, Condition II(A)]

c. Total emissions of nitrogen oxides from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill shall not exceed 5144 tons per year (twelve month total calculated at the end of each month). This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(a).

[AAC R18-2-306.01, Permit 1000547, Condition II(A)]

d. Permittee shall operate Kilns 1, 2, and 3 such that the temperature of the gas at the inlet to the kiln particulate matter control device does not exceed the temperature limit specified in Sub-Paragraph V(A)(1)(e) of this Attachment. Permittee shall operate the Kiln 4 in-line kiln/raw mill such that :

[AAC R18-2-1101(B)(46), 40 CFR §63.1344(a)]

(1) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust specified in Sub-Paragraph V(A)(1)(e) of this Attachment and established during the performance test when the raw mill was operating is not exceeded.

(2) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in Sub-Paragraph V(A)(1)(e) of this Attachment and established during the performance test when the raw mill was not operating, is not exceeded.

Sub-Paragraph V(A)(1)(d) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

e. The temperature limit for kilns and in-line kiln/raw mills shall be determined in accordance with Condition V(A)(5)(d)((4)) of this Attachment. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(b).

[AAC R18-2-1101(B)(46), 40 CFR §63.1344(b)]

2. Fuel Limitations

a. Permittee shall comply with Section VIII of this Attachment.

[Permit M191365P1-99 Condition IV, Permit 1000547 Condition VII]

b. Permittee shall apply for a significant permit revision in accordance with AAC R18-2-320 to use a fuel that is not listed in Part VIII(A). Permittee may be required to conduct performance testing to test the new fuel. Required performance tests may include, but not be limited to, any of the following :

[Permit M191365P1-99 Condition IV, AAC R18-2-319(A)(6)]

(1) Stack Gas Parameters, Velocity, Volumetric Flow Rate, Gas Analysis for CO_2, O_2, excess air, and dry molecular weight and moisture, EPA Reference Methods 1-4
(2) CO, EPA Reference Method 10
(3) NO_x, EPA Reference Method 7E
(4) VOC, EPA Reference Method 25
(5) SO_2, EPA Reference Method 6C
(6) TSP and PM_{10}, EPA Reference Methods 5D and 201 A
(7) Sulfuric Acid Mist, EPA Reference Method 8
(8) H_2S and TRS, EPA Reference Method 11
(9) Total Fluoride, EPA Reference Method 13B
(10) Dioxins (PCDD), Furans (PCDF), Polynuclear Aromatic Hydrocarbons, and Polychlorinated Biphenyls (PCB) Modified EPA Method 5 and CARB Reference

Methods 428 and 429

(11) Trace Elements : As, Be, Cd, Cu, Hg, Mn, Ni, Pb, and Zn, CARB Method 436

(12) Hexavalent and Total Cr, CARB Method 425

(13) HCl and HF, CARB Methods 421 and 13B

(14) Volatile Organic Carbons, CARB Method 410B

3. Air Pollution Control Equipment

a. Permittee shall operate Dust Collector H5-5-GB to control particulate emissions from Kiln 1, Kiln 2, and Kiln 3. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. Permittee shall operate Dust Collector H5-GB or Dust Collector K-50 to control particulate emissions from Kiln 4 in-line kiln/ raw mill. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

c. At all times, including periods of startup, shutdown, and malfunction, Permittee shall operate and maintain all affected sources and associated air pollution control equipment, subject to this Part, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))((i))]

4. Monitoring, Reporting, Recordkeeping

a. Permittee shall monitor opacity at each point where emissions are vented from Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill in accordance with the following:

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(c)]

(1) Permittee shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the particulate matter control devices to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by 40 CFR Part 63, Subpart A, and according to Performance Specification - 1 of 40 CFR 60, Appendix B.

(2) To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 20 percent. If the average opacity for any 6-minute block period exceeds 20 percent, this shall constitute a violation of the standard.

b. Permittee shall install, calibrate, maintain, and operate a particulate matter continuous emissions monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill. All requirements

relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS are deferred pending further rulemaking.
[AAC R18-2-1101(B)(46), 40 CFR §63.1350(k)]

c. Until such time that a PM CEMS is installed, Permittee shall monitor particulate matter emissions from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill in the following manner :
[AAC R18-2-306(A)(3)(c)]

(1) Permittee shall evaluate opacity measurements from the COM system on a 2-hour rolling average. If the 2-hour rolling average opacity exceeds 15 percent, Permittee shall initiate investigation of the control equipment within 24 hours of the occurrence, to identify any need for corrective action. If corrective action is required, Permittee shall implement such corrective action as soon as practicable in order to avert or minimize possible exceedances of the particulate matter standard in Condition V(A)(1)(a)((1)) of this Attachment. If the 2-hour rolling average opacity remains above 15 percent for 72 consecutive hours after the first occurrence, Permittee shall submit a compliance schedule to ADEQ in accordance with Part XII(D) of Attachment A.

(2) Permittee shall log in ink or in electronic format and maintain a record of 2-hour rolling average opacity measurements performed in accordance with Condition V(A)(4)(c)((1)) of this Attachment, and of any corrective actions taken. The record of corrective actions taken shall include the date and time that the 2-hour rolling average opacity exceeded 15 percent, and the date and time the corrective action, if any, was completed.

d. Permittee shall monitor D/F emissions in accordance with the following :
[AAC R18-2-1101(B)(46), 40 CFR §63.1350(f)]

(1) Permittee shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from Kilns 1, 2, 3, and Kiln 4 in-line kiln/ raw mill at the inlet to, or upstream of, the particulate matter control devices.

(a) The recorder response range shall include zero and 1.5 times either of the average temperatures established according to the requirements in Condition V(A)(5)(d)((4)) of this Attachment.

(b) The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference subject to the approval of the Director.

(2) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

(3) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

(4) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

e. Permittee shall maintain and operate continuous emission monitoring systems to measure carbon monoxide and nitrogen oxides mass emissions from Kiln 1,2,3, and Kiln 4 in-line kiln/raw mill, commencing with the start-up of the roller mill. The following requirements shall be met :

[AAC R18-2-306(A)(3)(c), AAC R18-2-312(H)(3), Permit 1000547 Condition VI, Permit 1001331]

(1) Permittee shall follow the monitoring performance specifications of 40 CFR Part 60 (§60.7, §60.8,§ 60.11, §60.13, Appendix B and Appendix F). Permittee shall install, certify, operate, and maintain a continuous emission monitoring system and a flow monitoring system with the automated data acquisition and handling system for measuring and recording carbon monoxide and nitrogen oxides concentration (in ppm), an oxygen (O_2) or carbon dioxide (CO_2) diluent gas monitor, volumetric flow in dry standard cubic feet per minute and carbon monoxide and nitrogen oxides mass emissions (in lb/hr) discharged to the atmosphere.

(2) Data recovery (availability) shall be 90 percent or greater per 90 day operating period (comprised of the previous 2160 hours when kiln emissions were vented through the stack) calculated at the end of each month.

(3) Instrument span shall be such that the expected output is 50 to 70 percent of span.

(4) All data shall be retained on site in electronic form and shall be available for review by any authorized ADEQ representative.

(5) Permittee shall continue to implement the ADEQ approved Quality Assurance/Quality Control Plan which includes procedures for dealing with data gaps based on the procedures contained in 40 CFR Part 75, Subpart D (40 CFR § 75.30).

(6) Permittee shall maintain a file of all measurements, including the continuous monitoring system and performance testing data; continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These data shall be recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records.

(7) Commencing with the start-up of the roller mill, Permittee shall calculate and record the total carbon monoxide and nitrogen oxides emissions from the four kilns at the end of each month, for the preceding twelve month period. This record shall be retained for at least five years following the date of such measurements.

This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(c).

f. Permittee shall conduct an inspection of the components of the combustion system of each kiln at least once per year.

[AAC R18-2-1101(B)(46), 40 CFR §63.1350(i)]

g. Permittee shall comply with the SSM Plan and Monitoring, Reporting, and Recordkeeping requirements in Part I(L) and Part I(M).

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(e)((3)), 40 CFR §63.1353, 40 CFR §63.1354, 40 CFR §63.1355]

h. All excess emissions shall be reported : (i) in accordance with Section XII of Attachment A, and (ii) on a quarterly basis in the form of an Excess Emissions and Continuous Monitoring System Performance Report.

[AAC R18-2-310.01, AAC R18-2-306(A)(3)(c)], 40 CFR §60.7]

i. Permittee shall keep the following records readily available for inspection at the cement plant :

[AAC R18-2-306.01, AAC R18-2-705(E), AAC R18-2-306(A)(3)(c), Permit 1000547 Condition VIII(A)]

(1) The total quantity of each raw material processed in each kiln per day.
(2) The type and amount of each fuel component utilized in each kiln per day.
(3) Monthly emissions of carbon monoxide and nitrogen oxides from the four cement kilns, and annual emissions calculated at the end of each month for the preceding twelve month period.

5. Testing

a. Permittee shall conduct initial performance tests on Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill before December 6, 2002, in accordance with Sub-Paragraphs V(A)(5)(c) and V(A)(5)(d) of this Attachment.

[AAC R18-2-1101(B)(1), 40 CFR §63.7(a)(2)(iii)]

b. Permittee shall conduct subsequent tests according to the following schedule :

(1) Performance tests required under Sub-Paragraph V(A)(5)(c) of this Attachment shall be repeated every year.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

(2) Performance tests required under Sub-Paragraph V(A)(5)(d) of this Attachment shall be repeated every 30 months.

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(d)]

(3) Permittee shall repeat the performance tests in Sub-Paragraphs V(A)(5)(c) and V(A)(5)(d) within 90 days of initiating any significant change in the feed or fuel from that used in the previous performance test. For the purposes of this permit condition, the normal use of the fuels, fuel blends, raw material or raw material blends listed in Section VIII of this Attachment does not constitute a "significant change."

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(e)]

c. Permittee shall demonstrate initial compliance with Condition V(A)(1)(a)((1)) for Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill by conducting a performance test in accordance with Condition V(A)(5)(c)((1)) through Condition V(A)(5)(c)((3)) of this Attachment. Permittee shall demonstrate initial compliance with Condition V(A)(1)(a)((1)) by conducting separate performance tests as specified in Condition V(A)(5)(c)((1)) through Condition V(A)(5)(c)((3)) while the raw mill of the Kiln 4 in-line kiln/raw mill is under normal operating conditions and while the raw mill is not operating. The opacity exhibited during the period of the test conducted in accordance with Condition V(A)(5)(c)((1)) through Condition V(A)(5)(c)((3)) shall be determined as required by Condition V(A)(5)(c)((4)) :

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(b)(1)]

(1) EPA Reference Method 5 of 40 CFR 60, Appendix A shall be used to determine particulate matter emissions. Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonable expected to occur. Each run shall be conducted for at least one hour, and the minimum sampling volume shall be 0.85 dry standard cubic meter (30 dry standard cubic feet). The average of the three runs shall be used to determine compliance. A determination of the particulate matter collected in the impingers ("back half") of the EPA Reference Method 5 particulate matter sampling train is not required to demonstrate initial compliance with the particulate matter standard. However, this shall not preclude ADEQ from requiring a determination of the "back half" for other purposes.

(2) Suitable methods shall be used to determine the kiln and in-line kiln/raw mill feed rate, except for fuels, for each run.

(3) The emission rate, E, of particulate matter shall be computed for each run using the following equation :

$E = (C_s Q_{sd}) / P$ where :

E = emission rate of particulate matter (kilogram)/(Megagram) of kiln feed;

C_s = concentration of particulate matter, (kilogram)/(dry standard cubic meter);
Q_{sd} = volumetric flow rate of effluent gas, (dry standard cubic meter)/hour; and
P = total kiln feed (dry basis), (Megagram)/hour.

(4) The opacity exhibited during the period of the tests conducted in accordance with Condition V(A)(5)(c)((1)) shall be determined through the use of a COM. The maximum six-minute average opacity during the three EPA Reference Method 5 test runs shall be determined during each EPA Reference Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limit in Condition V(A)(1)(a)((2)) of this Attachment.

d. Permittee shall demonstrate compliance with the emission standard in Condition V(A)(1)(a)((3)) of this Attachment by conducting a performance test in accordance with EPA Reference Method 23 of 40 CFR Part 60, Appendix A. Permittee shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating.

[AAC R18-2-1101(B)(46), 40 CFR §63.1349(b)(3)]

(1) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The duration of each run shall be at least three hours and the sample volume for each run shall be at least 2.5 dry standard cubic meter (90 dry standard cubic feet). The concentration shall be determined for each run and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.

(2) The temperature at the inlet to the kiln or in-line kiln/raw mill particulate matter control device shall be continuously recorded during the period of the EPA Reference Method 23 test, and the continuous temperature records shall be included in the performance test report.

(3) One minute average temperatures shall be calculated for each minute of each run of the test.

(4) The run average temperature shall be calculated for each run, and the average of the run average temperatures shall be determined and included in the performance test report and shall determine the applicable temperature limit in accordance with Sub-Paragraph V(A)(1)(e) of this Attachment.

e. Permittee shall conduct a performance test once in the permit term in accordance with EPA Reference Method 6 of 40 CFR Part 60, Appendix A, to measure the amount of sulfur dioxide being emitted into the atmosphere from Kilns 1, 2, and 3. The tests shall be conducted while burning the fuel or fuel mix containing the highest possible sulfur content for the year.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

6. Methods for Determining Compliance

a. The Director shall determine compliance with Condition V(A)(1)(a)((1)) and Condition V(A)(1)(a)((3)) based on the results of the performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 23 of 40 CFR 60, Appendix A, respectively.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(f)(2)(i)]

b. The Director shall determine compliance with Condition V(A)(1)(a)((1)), Condition V(A)(1)(a)((3)), Sub-Paragraph V(A)(1)(d), and Sub-Paragraph V(A)(1)(e) by evaluation of Permittee's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in Part I(G), Part I(H), Part I(I), Part I(J), Part I(K), Part I(L), and Paragraph V(A)(4).

[AAC R18-2-1101(B)(1), 40 CFR §63.6(f)(2)(ii)]

c. The Director shall determine compliance with Condition V(A)(1)(a)((2)) based on COM system data, as stated in Condition V(A)(4)(a)((2))

[AAC R18-2-1101(B)(1, 46), 40 CFR §63.6(h)(2)(i), 40 CFR §63.1350(c)(3)]

d. The Director shall determine compliance with Sub-Paragraph V(A)(1)(b) and Sub-Paragraph V(A)(1)(c) based on the results of the continuous emissions monitoring systems installed, maintained, and operated as required by Sub-Paragraph V(A)(4)(e).

[AAC R18-2-306.01, AAC R18-2-312(H)(3), Permit 1000547 Condition VI]

e. The Director shall determine compliance with Condition V(A)(1)(a)((4)) and Condition V(A)(1)(a)((5)) based on the results of the performance tests conducted in accordance with EPA Reference Method 6 and EPA Reference Method 5 of 40 CFR 60, Appendix A, respectively. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

f. Operation and maintenance requirements in this Part are enforceable independent of emissions limitations. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in Part I(L)), review of operation and maintenance records, and inspection of the source.

[AAC R18-2-1101(B)(1), 40 CFR §63.6(e)((1))(iii), 40 CFR §63.6(e)((2))]

7. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §63.1343(b), AAC R9-3-505(B)(1) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), 40 CFR §60.62(a), AAC R18-2-705(D), 40 CFR §63.1344, 40 CFR §63.1349(b)(1), 40 CFR §63.1349(b)(3), 40 CFR §63.1349(d), 40 CFR §63.1349(e), 40 CFR §63.1350(c), 40 CFR §63.1350(f), 40 CFR §63.1350(k), 40 CFR §63.1350(i), 40 CFR §63.1353, 40 CFR §63.1354, and §63.1355, for the affected sources subject to this Part.

[AAC R18–2-325]

B. Clinker Coolers 1, 2, 3, 4

This Part is applicable to the following : Clinker Coolers 1, 2, 3, and 4.

1. Emission Limits/Standards

Permittee shall not cause to be discharged into the atmosphere from any clinker cooler, any gases which :

a. Contain particulate matter in excess of 0.050 kilogram/Megagram (0.10 pounds per ton) of feed (dry basis) to the kiln.
[AAC R9-3-505(B)(2)(a) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), AAC R18-2-901(10), 40 CFR §60.62(b)(1)]

b. Exhibit opacity greater than :

(1) 10 percent for Clinker Cooler 4. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).
[AAC R9-3-505(B)(2)(b) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), AAC R18-2-901(10), 40 CFR §60.62(b)(2)]

(2) 20 percent for Clinker Coolers 1, 2, and 3.

[AAC R18–2-705(C)]

2. Air Pollution Control Equipment

a. Permittee shall operate Dust Collector H2-1-DC to control particulate emissions from Clinker Cooler 1. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. Permittee shall operate Dust Collector H2-2-DC to control particulate emissions from Clinker Cooler 2. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

c. Permittee shall operate Dust Collector H2-3-DC to control particulate emissions from Clinker Cooler 3. This Sub-Paragraph is designated as a material permit condition in

accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

d. Permittee shall operate Dust Collector H2-GB to control particulate emissions from Clinker Cooler 4. This Sub-Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

e. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate Clinker Cooler 4 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

a. Permittee shall continue to calibrate, maintain, and operate a COM in accordance with 40 CFR § 60.13, at the outlet of the particulate matter control device to measure the opacity of emissions discharged into the atmosphere from Clinker Cooler 4.

[AAC R18-2-901(10), 40 CFR §60.63(b)]

b. Permittee shall monitor opacity at each point where emissions are vented from Clinker Coolers 1, 2, and 3, in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

c. All excess emissions shall be reported : (i) in accordance with Section XII of Attachment A, and (ii) on a quarterly basis in the form of an Excess Emissions and Continuous Monitoring System Performance Report.

[AAC R18-2-310.01, AAC R18-2-306(A)(3)(c), 40 CFR §60.7]

d. Permittee shall record the total quantity of clinker produced per day. At the completion of the first change of Phase II of RIMOD III, Permittee shall record at the end of every month, the annual clinker production calculated for the previous 12-month period. Permittee shall keep these records readily available for inspection at the cement plant.

[AAC R18-2-306.01, AAC R18-2-705(E), AAC R18-2-306(A)(3)(c), Permit 1000547 Condition VIII(A)]

4. Testing

Permittee shall conduct performance tests once during the permit term in accordance with EPA Reference Method 5 of 40 CFR 60, Appendix A, for particulate matter from Clinker Coolers 1, 2, 3, and 4.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(C)]

5. Methods of Determining Compliance

The Director shall determine compliance with Sub-Paragraph V(B)(1)(a) and Sub-Paragraph V(B)(1)(b) based on the results of the performance tests conducted in accordance with EPA Reference Method 5 and EPA Reference Method 9 of 40 CFR 60, Appendix A, respectively. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R9-3-505(B)(2)(a) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3), AAC R18-2-901(10), 40 CFR §60.62(b)(1), and 40 CFR §60.63(b) for Clinker Cooler 4; and AAC R9-3-505(B)(2)(a) as approved into the Arizona SIP on September 28, 1982, 40 CFR §52.126(b)(3) and AAC R18-2-705(C) for Clinker Coolers 1, 2, and 3.

VI. PROCESS SOURCES SUBJECT TO AAC R18-2-705 and AFFECTED FACILITIES SUBJECT TO 40 CFR 60, Subpart F

A. Process Sources subject to AAC R18-2-705

This Part is applicable to the following process sources : (i) equipment as identified in Column 9 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

a. Permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour from any process source, in total quantities in excess of the amounts calculated by the equations set forth below :

(1) For process sources having a process weight rate 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation :

$E = 3.59\ P^{0.62}$, where :

E = the maximum allowable particulate emissions rate in pounds-mass per hour

P = the process weight rate in tons-mass per hour

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation :

$E = 17.31P^{0.16}$, where E and P are as defined in Condition VII(A)(1)(a)((1)).

[AAC R9-3-505(B)(3) as approved into the Arizona SIP on September 28, 1982, 40 CFR § 52.126(b)(1)]

b. Permittee shall not cause, suffer, allow, or permit the opacity of any plume or effluent from any process source to be greater than 20 percent as measured by EPA Reference Method 9.

[AAC R18-2-705(C)]

c. Permittee shall comply with the following emission limits :

[AAC R18-2-306.01, Permit 1000547 Condition II(A)]

(1) Dust Collector CM7-DC1 : 1.34 pounds per hour of particulate matter, and 0.73 pounds per hour of PM_{10}.
(2) Dust Collector CM7-DC2 : 0.61 pounds per hour of particulate matter, and 0.33 pounds per hour of PM_{10}.
(3) Dust Collector CM7-DC3 : 3.83 pounds per hour of particulate matter, and 2.08 pounds per hour of PM_{10}.
(4) Dust Collector CM7-DC4 : 1.04 pounds per hour of particulate matter, and 0.57 pounds per hour of PM_{10}.
(5) Dust Collector CM7-DC5 : 0.71 pounds per hour of particulate matter, and 0.38 pounds per hour of PM_{10}.
(6) Dust Collector D2-DC4 : 0.166 pounds per hour of particulate matter, and 0.166 pounds per hour of PM_{10}.

2. Air Pollution Control Equipment

Permittee shall operate the following air pollution control equipment to control particulate matter emissions from the process sources subject to this Part :

Dust Collectors - B8-DC1, B8-DC2, B9-DC1, B9-DC2, B9-DC3, B9-DC5, C2-DC1, C2-DC4, F2-DC1, F3-DC1, F3-DC2, AC-DC3, AC1-DC1, AC2-DC1, AC3-DC1, AC4-DC1, F2-PS-DC1, F2-PS-DC2, F2-PS-DC3, F3-KS-DC1, H2-BE2-DC1, H4-K1-DC, H4-K2-DC, H4-K3-DC, H5-5-DC1, H5-5-DC2, H2-KB1-DC, H2-DC1, H2-DC2, H2-KB3-DC, C2-DC2, C2-DC5, C2-DC6, C2-DC7, C2-DC8, C2-DC9, C2-DC10, C2-DC11, C2-DC12, C2-DC13, D2-DC1, D2-DC3, CM1-DC1, CM2-DC1, CM3-DC1, CM4-DC1, CM5-DC1, CM6-DC1, CM7-DC1, CM7-DC2, CM-DC4,

CM-DC5, CM-MA-DC1, D2-DC4, D2-1-DC1, BL-SB5-DC1, BL-SB5-DC2, BL-SB5-DC3, BL-DC1, BL-DC2, BL-DC3, BL-DC4, BL-DC5, BL-DC6, BL-DC7, BL-DC11, CM-DC8, CM-DC9, CM-DC10, CM-DC11, CM-DC12

Paragraph VI(A)(2) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall monitor stack emissions from the process sources subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

4. Testing

a. Permittee shall conduct performance tests once during the permit term on all process sources subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

b. Permittee shall conduct performance tests once during the permit term in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A on Dust Collectors CM7-DC1, CM7-DC2, CM7-DC3, CM7-DC4, CM7-DC5, and D2-DC4.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

The Director shall determine compliance with Sub-Paragraphs VI(A)(1)(a) and VI(A)(1)(c) based on the results of performance tests conducted in accordance with EPA Reference Method 5. The Director shall determine compliance with Sub-Paragraph VI(A)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with AAC R9-3-505(B)(3) as approved into the Arizona SIP on September 28, 1982, AAC R18-2-705(C), 40 CFR §52.126(b)(1), and Permit 1000547 Condition II(A) for the process sources subject to this Part.

[AAC R18-2-325]

B. Affected Facilities subject to 40 CFR 60, Subpart F

This Part is applicable to the following affected facilities: (i) equipment as identified in Column 9 of Attachment D, and (ii) Drop Points associated with each such piece of equipment.

1. Emission Limits/Standards

   a. Permittee shall not cause to be discharged into the atmosphere any gases which exhibit opacity in excess of 10 percent from affected facilities subject to this Part. This Paragraph is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(f).

   [AAC R18-2-901(10), 40 CFR §60.62(c)]

   b. Permittee shall comply with the following emission limits :

   [AAC R18-2-306.01, Permit 1000547 Condition II(A)]

   (1) Dust Collector C2-DC3 : 0.334 pounds per hour of particulate matter, and 0.334 pounds per hour of PM_{10}.
   (2) Dust Collector D4-DC2 : 0.668 pounds per hour of particulate matter, and 0.668 pounds per hour of PM_{10}.
   (3) Dust Collector D4-DC1 : 1.671 pounds per hour of particulate matter, and 1.671 pounds per hour of PM_{10}.
   (4) Dust Collector F2-DC4 : 0.062 pounds per hour of particulate matter, and 0.062 pounds per hour of PM_{10}.
   (5) Dust Collector AC-DC1 : 0.373 pounds per hour of particulate matter, and 0.373 pounds per hour of PM_{10}.
   (6) Dust Collector CM-DC17 : 0.497 pounds per hour of particulate matter, and 0.497 pounds per hour of PM_{10}.
   (7) Dust Collector L-04 : 0.373 pounds per hour of particulate matter, and 0.373 pounds per hour of PM_{10}.
   (8) Dust Collector G-04 : 0.445 pounds per hour of particulate matter, and 0.445 pounds per hour of PM_{10}.
   (9) Dust Collector G-21 : 0.356 pounds per hour of particulate matter, and 0.356 pounds per hour of PM_{10}.
   (10) Dust Collector H-36 : 0.401 pounds per hour of particulate matter, and 0.401 pounds per hour of PM_{10}.
   (11) Dust Collector H-41 : 0.535 pounds per hour of particulate matter, and 0.535 pounds per hour of PM_{10}.
   (12) Dust Collector K-58 : 0.373 pounds per hour of particulate matter, and 0.373 pounds per hour of PM_{10}.

2. Air Pollution Control Equipment

   a. Permittee shall operate the following air pollution control equipment to control

particulate matter emissions from the affected facilities subject to this Part :

Dust Collectors : C2-DC3, D4-DC1, D4-DC2, F2-DC4, G-04, G-21, H-36, H-41, H-70, AC-DC1, AC-BE2-DC, H4-DC1, H5-DC1, K-58, L-04, N-33, N-37, D3-1-DC1, D3-1-DC2, D3-1-DC3, BL-DC5, CM-DC14, CM-DC15, CM-DC16, CM-DC17

Sub-Paragraph VI(B)(2)(a) is designated as a material permit condition in accordance with AAC R18-2-331(A)(3)(e).

[AAC R18-2-306(A)(2)]

b. At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate all affected facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing air emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[AAC R18-2-901(1), 40 CFR §60.11(d)]

3. Monitoring, Reporting, Recordkeeping

Permittee shall monitor stack emissions from the process sources subject to this Part in accordance with the OMP developed pursuant to Part I(G) of this Attachment.

[AAC R18-2-306(A)(3)(c)]

4. Testing

a. Permittee shall conduct performance tests once during the permit term on all affected facilities subject to this Part, in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

b. Permittee shall conduct performance tests once during the permit term in accordance with EPA Reference Method 5 of 40 CFR Part 60, Appendix A on Dust Collectors C2-DC3, D4-DC2, D4-DC1, F2-DC4, AC-DC1, CM-DC17, L-04, G-04, G-21, H-36, H-41, and K-58.

[AAC R18-2-312(A), AAC R18-2-306(A)(3)(c)]

5. Methods of Determining Compliance

a. The Director shall determine compliance with Sub-Paragraph VI(B)(1)(a) based on the results of performance tests conducted in accordance with EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-901(1), 40 CFR §60.11(b)]

b. For the purposes of submitting compliance certifications or establishing whether Permittee has violated or is in violation of Sub-Paragraph VI(B)(1)(a), nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the affected facilities subject to this Part would have been in compliance with Sub-Paragraph VI(B)(1)(a) if the appropriate performance or compliance test or procedure had been performed.

[AAC R18-901(1), 40 CFR §60.11(g)]

c. The Director shall determine compliance with Sub-Paragraph VI(B)(1)(b) based on the results of performance tests conducted in accordance with EPA Reference Method 5 of 40 CFR 60, Appendix A. Nothing in this permit shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.

[AAC R18–2-312(G), AAC R18-2-312(I)]

6. Permit Shield

Compliance with this Part shall be deemed compliance with 40 CFR §60.62(c) and Permit 1000547 Condition II(A) for the affected facilities subject to this Part.

[AAC R18-2-325]

VII. FUEL BURNING EQUIPMENT

This Section is applicable to the process sources identified in Column 9 of Attachment D.

A. Emission Limits/Standards

1. Permittee shall not cause, allow, or permit the emission of particulate matter, caused by combustion of fuel, from any fuel burning operation subject to this Section, in excess of the amounts calculated by one of the following equations :

[AAC R18-2-724(C)]

a. For equipment having a heat input rate of 4200 million BTU per hour or less, the maximum allowable emissions shall be determined by the following equation :

$E = 1.02\ Q^{0.769}$, where

E = the maximum allowable particulate emission in pounds-mass per hour,
Q = the heat input rate in million BTU per hour

b. For equipment having a heat input rate greater than 4200 million BTU per hour, the

maximum allowable emissions shall be determined by the following equation :

$E = 17.0\ Q^{0.432}$, where E and Q have the same meaning as in Sub-Paragraph VII(A)(1)(a).

2. Permittee shall not cause the emission of any plume from process sources subject to this Section, whose opacity is greater than 15 percent, as determined by EPA Reference Method 9 of 40 CFR Part 60, Appendix A.

[AAC R18-2-724(J)]

B. Permit Shield

Compliance with this Section shall be deemed compliance with AAC R18-2-724(C) and AAC R18-2-724(J) for the process sources subject to this Section.

[AAC R18-2-325]

VIII. SECONDARY MATERIALS UTILIZATION PROCEDURES AND FUELS - TYPES, AMOUNTS, ANALYSIS

A. Permittee shall only burn the following fuels in Kilns 1, 2, 3, and Kiln 4 in-line kiln/raw mill:

[Permit 1000547, Condition VII]

Fuel Type	Maximum Fuel Proportion [1, 2]	
	Kilns 1, 2, 3	Kiln 4
Coal	100	100
Coke	40	12
Natural Gas	100	100
Diesel	100	100
No. 2 Fuel Oil	100	100
Bunker C Oil	100	100
Chopped Tires (< 6" x 6")	0	34
On-Specification Used Oil Fuel	0	41
Wood Chips	0	22
Activated Carbon	0	5
Jet Fuel	0	5

Notes - 1 : Maximum Fuel Proportion is defined as the maximum percent of the actual heat input provided by a fuel component in a fuel mixture.

2 : The total sulfur content of any fuel mix, calculated using the most recent and definitive fuel analysis test data (see Part VIII(C)) shall not exceed 1.25 pounds per million BTU.

B. This permit does not authorize the use of any other fuels (i.e., any fuels other than those listed in Part VIII(A)), including, but not limited to, off-specification used oil fuel, hazardous waste or hazardous waste fuel without prior approval by ADEQ.

[Permit 1000547, Condition VII]

C. This Section is not based on a federal applicable requirement and is therefore not federally enforceable. Unless otherwise specified, all sample collection, sample preparation, and analyses performed or caused to be performed by Permittee shall be conducted according to the current ASTM Standards or EPA Testing Methods. Except for on-specification used oil fuel, analyses performed by the fuel supplier shall be acceptable for the purposes of these requirements. For on-specification used oil fuel, the analyses shall be performed by Permittee or by a qualified laboratory operating under Permittee's contract.

[AAC R18-2-306(B)(2), Permit 1000547, Condition VII]

1. Fuel Analysis [AAC R18-2-311]

Permittee shall test or cause to be tested the following fuels for higher heating value, sulfur content and HAPs (as defined in Clean Air Act §112(b)(1)). Permittee shall submit to ADEQ in writing, prior to testing for HAPs, a list of the specific HAPs (in addition to those specified below) for which the concentrations are to be determined. This list should be based on an estimate of the potential for the HAP being present in the individual fuel to be tested in sufficient quantity to lead to a significant air quality impact as defined by the appropriate AAAQG. Approval of the HAPs list for each fuel shall require ADEQ's written approval. The frequency of the tests shall be according to the following frequency :

a. The first fuel delivery of coal, coke, diesel fuel, No. 2 Fuel Oil or Bunker C Oil from each fuel supplier and/or mine location or oil refinery; and

b. Every month for shredded tires and every three months for wood chips; and

c. For the on-specification used oil fuel :

(1) the heating value and the sulfur content shall be calculated based on vendor testing;

(2) each tanker or truck shipment of on-specification used oil fuel received by Permittee shall be field tested for total halogens, measured as chlorides, at a minimum, before it is unloaded into an on-site storage tank; the screening method used shall be Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-486, 3rd Edition, Method 9077 or a comparable method approved by ADEQ in writing prior to its use; those shipments that do not meet the

appropriate used oil fuel specifications listed in ARS § 49-801(B) shall be rejected;

(3) The following HAPs concentrations shall be measured for each on-site tank of fuel before it is used : Arsenic, Cadmium, Chromium, Lead, Polychlorinated biphenyls (PCBs) and total halogens; those tanks that do not meet the appropriate used oil fuel specifications listed in ARS § 49-801(A)(5) and § 49-801(B) shall not be fired in any kiln; and

d. For activated carbon :

(1) The heating value shall be assumed to be 7000 BTU/lb. After issuance of this permit, Permittee shall test the first two shipments of activated carbon for the sulfur content. Based on these tests, ADEQ shall establish a baseline value to be used in future calculations.

(2) Permittee shall be responsible to obtain an analysis of each shipment of activated charcoal to determine the concentration of all potentially hazardous substances as listed in the Arizona Ambient Air Quality Guidelines (AAAQG). Permittee shall then model the dispersion of those substances identified using an EPA approval model (e.g., SCREEN 3, MODEL) to determine the potential impact. If the result of the dispersion model indicate a potential exceedance of an AAAQG value, the material shall not be used, and ADEQ shall be notified of the results. In any case, Permittee shall retain the fuel analysis and modeling results for five (5) years and make available to authorized ADEQ personnel.

2. From this data the sulfur content of the as-fired fuel shall be calculated to assure that the maximum fuel sulfur content does not exceed 1.25 pounds per million BTU. The results of these tests and calculations shall be retained for at least five (5) years following the date of measurement.

Since procedures for representative sample collection and preparations are not fully defined for shredded tires, Permittee shall develop a protocol for such and submit this protocol, in writing, to ADEQ for review and approval. This protocol must be approved by ADEQ prior to commencing the burning of shredded tires on a continuing basis.

3. Secondary Materials (Raw Feed Materials) Utilization Procedures

Permittee shall keep complete records of secondary materials used as ingredients or raw materials in its facility and shall evaluate such secondary materials as follows :

a. Pre-acceptance Procedures : Permittee shall require a completed and signed Alternate Raw Material Recycling Questionnaire with analyses and a representative sample of the secondary material from the generator. Permittee shall re-analyze the

sample for any analyses not performed by the generator, and evaluate the secondary material to determine whether the physical characteristics sufficiently compare with the generator description and the MSDS supplied by the generator and to determine, based upon the information supplied by the generator or developed independently by Permittee, if the secondary material is regulated as a hazardous waste under the Resource Conservation and Recovery Act and the Arizona Hazardous Waste Management Act (hereinafter collectively "RCRA"). If the secondary material is determined to be a hazardous waste regulated under RCRA, Permittee shall not use the secondary material.

b. Acceptance Procedures : Before secondary materials can be accepted at the facility, the secondary material must be weighed unless accompanied by a certified weighmaster's ticket; the ticket must have the generator's name and an accurate material description. During unloading, the secondary material will be compared to the MSDS and the Recycling Questionnaire and unloading will be suspended until any inaccuracies have been resolved. Permittee will also obtain a representative sample of the secondary material being unloaded.

c. Record-Keeping : All records concerning Permittee's evaluation of secondary materials shall be maintained at the facility and available for review by ADEQ.

d. Secondary materials : For purposes of Paragraph VIII(C)(3), "secondary materials" are materials generated by a party other than Permittee that are to be reprocessed or reused and which are rich in oxides of calcium, alumina, iron, or silica. This definition does not include earthen ores mined exclusively for their oxide content where no extraction or beneficiation other than mining, crushing, screening, physical separation, or washing with water have occurred.

IX. AMBIENT MONITORING

This Section is not based on a federal applicable requirement and is therefore not federally enforceable. Permittee shall operate and maintain the ambient PM_{10} particulate samplers presently operating at the existing Rillito Northwest (NW) monitoring site and the meteorological sensors presently operating at the existing Rillito Southeast (SE) monitoring site. This PM_{10} State and Local Air Monitoring Station (SLAMS) - equivalent network shall comply with the following requirements :

[AAC R18-2-306(B)(2), 40 CFR 58, Appendices, Permit 1000547 Condition X]

A. General Requirements

1. Samplers : Wedding Critical Flow High Volume PM_{10} Sampler or equivalent.

2. Sample Size to be measured : 0 to 10 microns

B. Laboratory Sample Analyses

Each sample shall be weighed, the 24-hour sample period concentration calculated and reported in standard $\mu g / m^3$. The laboratory mass measurements and subsequent data reporting shall be done in accordance with appropriate manufacturer's instruction manuals and in accordance with the specifications contained in the latest revision of Section 2.11 of the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, U.S. Environmental Protection Agency.

C. PM_{10} Sampler Operations

All PM_{10} samplers shall be operated, calibrated and maintained in accordance with the appropriate manufacturer's instruction manuals and in accordance with the latest revision of Section 2.11 of the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, U.S. Environmental Protection Agency. The samplers shall be sited, maintained, and operated in accordance with the requirements of 40 CFR Part 50, Appendix J; 40 CFR Part 58, Appendix A, Sections 3.3, 3.4.1, 5.3, and 5.4; and 40 CFR Part 58, Appendix E, Section 8. Permittee shall operate a second, collocated PM_{10} sampler of the same brand and model at the Rillito NW site to provide precision data for Permittee's sampling network.

D. Reports

Quarterly reports listing individual data points and summarizing the data collected pursuant to this section shall be submitted before the 45th day of the following quarter. An annual report summarizing the quality assurance data as required by 40 CFR Part 59, Appendix A, Sections 3.3, 3.4.1, 5.3, and 5.4 shall be submitted before the 60th day of the quarter following the fourth quarter of the calendar year. **Two(2) copies of the quarterly and annual reports shall be mailed, one to the Air Assessment Section and the other to the Compliance Section of the Air Quality Division.** If desired, by subsequent letter agreement, Permittee may submit data records to the Air Assessment Section in electronic format, with a summary hard copy report attached.

The report shall contain the following information specified by site. All concentrations shall be presented in micrograms per cubic meter :

1. Date of each measurement.

2. PM_{10} concentration for each measurement.

3. Average PM_{10} concentration for the quarter.

4. Maximum PM_{10} concentration for the quarter.

E. PM_{10} Site and Sampling Frequency

The PM_{10} samplers shall be operated at the Rillito NW site (8820 West Water Street). Samples shall be collected on every-sixth-day, midnight to midnight sampling schedule. This schedule shall be offset by three days from the national every-sixth-day sampling schedule. The attainment status of the Rillito PM_{10} Planning Area will also be monitored by ADEQ at the Rillito NW site on the national every-sixth-day schedule. The monitoring schedule specified for Permittee will be reviewed and may be subject to change as the attainment status of the Rillito Planning Area progresses.

In the event that a sampler malfunction or other circumstances beyond Permittee's control prevents the successful collection of the required samples on the schedule specified above, special midnight to midnight samples shall be substituted starting as soon as practicable after the correction of the malfunction problem to comply with the data recovery specifications listed in CFR documents. Sampling, as may be required by ADEQ, during a facility upset or failure of air pollution control equipment shall supersede the every-sixth-day schedule specified above.

F. Meteorological Monitoring

Permittee shall operate, calibrate, and maintain wind direction and wind speed sensors complying with the equipment, siting, quality assurance, and data reduction specifications found in the latest revisions of the U.S. Environmental Protection Agency documents entitled Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV, and On-Site Meteorological Program Guidance for Regulatory Modeling Applications. These sensors shall be operated at the Rillito SE site (0.7 miles southeast of Rillito, at APCC Well Site #4).

G. Data from the samplers and sensors shall be retained by Permittee for at least five years after the date of generation.

ATTACHMENT "D": EQUIPMENT LIST

Air Quality Control Permit No. M190310P1-00
for
ARIZONA PORTLAND CEMENT COMPANY - RILLITO CEMENT PLANT